THE
INDUSTRIAL ARTS INDEX

THIRD TWO-YEAR CUMULATION

[ELEVENTH ANNUAL VOLUME]

1922–1923

SUBJECT INDEX TO A SELECTED LIST OF ENGINEERING, TRADE AND BUSINESS PERIODICALS, BOOKS AND PAMPHLETS WITH A LIST OF IMPORTANT TECHNICAL SOCIETIES

EDITED BY
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PREFACE

This volume, the third two-year cumulation of the Industrial Arts Index, covers approximately the years 1922 and 1923. On a following page will be found the list of periodicals indexed. Of these, the following were added to the list in 1923:

American Dyestuff Reporter (New York), Textile Colorist (Philadelphia), Journal of the Society of Dyers and Colourists (London), Chemical Age (London), National Safety News (Chicago), Professional Engineer (Chicago), Journal of the Textile Institute (London).

The list of Technical Societies has been compiled from the magazines indexed thru the two-year period and has been brought as nearly up to date as possible.

The book titles which have been listed monthly in the Index in the past two years, have been incorporated under their proper subject headings in the main alphabet with the periodical references. These books and pamphlets, numbering 3781, include British, and some French and German, as well as American books, and cover a wide range of subjects relating to business, technology and economic problems. Bibliographies from the Library Journal and other periodicals not regularly indexed are also included.

Grateful acknowledgment is made to Miss Elsie Schonholtz who has revised a good part of the copy and to Miss Bella Traum and Miss Dorothy Whittaker for preparation of copy and other work. M. E. P.

7419

Technical Societies

The following list is compiled by Marian Lord of the Index staff from notices found in the periodicals indexed in the Industrial Arts Index for 1923.

Advertising affiliation
Sec.-Treas. Arthur P. Kelly, Rochester, N.Y.
Annual convention, Rochester, N.Y., Sept. 21-22, '23

Aerial league of America
Sec. Maj. R. Sutton, 280 Madison Ave., New York

Aerial league of the world
Sec. 280 Madison Ave., New York

Aero club of America
Sec. Augustus Post, 11 East 38th St., New York
Annual meeting, New York, Nov. 13, '22
This association, together with the National air association, has been amalgamated into the National aeronautic association of the United States of America

Aeronautical chamber of commerce of America, inc.
Sec. Luther K. Bell, 501 Fifth Ave., New York
Annual meeting, New York, July 12, '23
National air institute, St. Louis, Mo., Oct. 2, '23
This organization partly succeeds the Manufacturers' aircraft association in that it will collect and disseminate information regarding aeronautical activities, and will publish the Aircraft Year Book

Aeronautical society of America
Amalgamated with the Society of automotive engineers

Agricultural publishers association
Pres. B. Kirk Rankin, c/o Southern Agriculturist, 1523 Broadway, Nashville, Tenn.
Annual meeting, Chicago, Oct. 16-17, '23

Alloys research association
Chairman, Bd. of Managers, Alfred D. Flinn, Engineering Foundation, 29 W. 39th St., New York

American asphalt association
Sec. 2 Rector St., New York

American association for labor legislation
Sec. John B. Andrews, 131 E. 23d St., New York
Annual meeting, Chicago, Dec. 27-29, '22

American association for the advancement of science
Sec. Dr. Burton E. Livingston, Johns Hopkins University, Baltimore
75th anniversary meeting, University of Cincinnati, Cincinnati, O., Dec. 27-Jan. 2, '24

American association of advertising agencies
Exec.-Sec. James O'Shaughnessy, Metropolitan Tower, New York
Meeting, Atlantic City, June 7, '23

American association of engineers
Sec. C. E. Drayer, 63 East Adams St., Chicago
Annual meeting, San Francisco, June 11-13, '24

American association of ice and refrigeration
Sec. J. F. Nickerson, 5707 West Lake St., Chicago
Annual meeting, Washington, D.C., April 24-25, '23

American association of industrial physicians and surgeons
Sec.-Treas. Dr. William Alfred Sawyer, Eastman Kodak co., 343 State St., Rochester, N.Y.
Annual meeting, Buffalo, Oct. 1-3, '23

American association of masters, mates, and pilots
Sec. M. D. Tenniswood, 308 Vine St., Camden, N.J.

American association of museums
Sec. Laurence V. Coleman, 141 E. 29th St., New York
Annual meeting, Charleston, S.C., May, '23

American association of oil burner manufacturers
Sec.-Treas. Leod C. Becker, Galesburg, Ill.
Organization meeting, Chicago, Oct. '23

American association of operating engineers
Sec. H. C. Bristol, Alaco, Tenn.
Annual meeting, Macon, Ga., April 26-28, '23
Organization of southern electric light and power plant engineers

American association of petroleum geologists
Sec.-Treas. Charles E. Decker, Norman, Okla.
Annual convention, Los Angeles, Sept. 20-21, '23
Annual meeting, Houston, Tex., March 27-29, '24

American association of port authorities
Sec. Tiley S. McChesney, Court Bldg., New Orleans
Annual convention, New Orleans, Sept. '23
Annual meeting, New Orleans, Dec. 10-12, '23

American association of refrigeration
See American association of ice and refrigeration

American association of sales executives
Sec. C. K. Woodbridge, Dictaphone Sales Corp., 154 Nassau St., New York
Annual conference, Buck Hill Falls, Pa., Oct. 8-10, '23

American association of state highway officials
Sec. Charles M. Upham, Raleigh, N.C.
Annual meeting, New Orleans, Louisiana, Dec. 3, '23

American association of textile chemists and colorists
Sec. Walter E. Hadley, 5 Mountain Ave., Maplewood, N.J.
Annual meeting, Providence, R.I., Dec. 7-8, '23

American association of woolen & worsted manufacturers
Sec. J. J. Nevins, 24 Waverly Place, New York
Semi-annual meeting, New York, July 17, '23
Annual meeting, New York, Dec. 5, '23

American automobile association
Sec. G. Roy Hill, 3900 Harriet Ave., Minneapolis, Minn.
Annual meeting, New York, May 22, '23

American bankers' association
Sec. Wm. B. Fitzwilson, 5 Nassau St., New York
Annual convention, Chicago, Oct. '24

American boiler manufacturers' association
Sec.-Treas. H. N. Covell, 191 Dikeman St., Brooklyn, N.Y.
Winter meeting, New York, Feb. 12, '23
Annual convention, Hot Springs, Va., June 4-6, '23

American ceramic society
Sec. Ross C. Purdy, Ohio State University, Columbus, Ohio
Annual meeting, Atlantic City, Feb. 4-8, '24

American chamber of economics
Sec. 31 Irving Place, New York

American chemical society
Sec. Charles L. Parsons, 1709 G St., N. W., Washington, D.C.
Annual convention, Milwaukee, Wis., Sept. 10-14, '23
National exposition of chemical industries, Grand Central Palace, N.Y., Sept. 17-22, '23
Spring meeting, Washington, D.C., April 21-25, '24

American civic association
Sec. Harlean James, 905-7 Union Trust Bldg., Washington, D.C.

American committee on electrolysis
Chairman, Bion J. Arnold, 29 W. 39th St., New York

American concrete institute
Sec. Harvey Whipple, 1807 E. Grand Boulevard, Detroit, Mich.
Annual convention, Chicago, Feb. 25-28, '24

American concrete pipe association
Sec. M. W. Loving, 111 West Washington St., Chicago
Annual convention, Chicago, Jan. 17-19, '24

American construction council
Exec. Sec. Dwight L. Hoopingarner, 28 W. 44th St., New York
Annual meeting, New York, Sept. 21, '23
Aim is to correlate the efforts of the existing organizations, including architects, contractors, labor, manufacturers, and public utilities, state, and federal officers, for the betterment of the industry

American cotton manufacturers' association
Sec.-Treas. Winton D. Adams, Charlotte, N.C.
Annual convention, Richmond, Va., May 16-17, '23

American drop forge association
The work of this association is being carried on by the American drop forging institute

American drop forging institute
Sec. 1168 Hanna Bldg., Cleveland
Annual convention, Detroit, Oct. 3-6, '22
This association will carry on the work of the American drop forge association

American drug manufacturers' association
Sec. A. Homer Smith, c/o E. R. Squibb & Sons, 80 Beekman St., New York
Annual meeting, New York, April 16-19, '23

American dyes institute
Sec. William R. Corwine, 132 W. 42d St., New York
Practically out of existence since the organization of the Synthetic organic chemical manufacturers' association

American economic association
Sec.-Treas. Ray B. Westerfield, Yale University, New Haven, Conn.
Annual meeting, Washington, D.C., Dec. 27-29, '23

American electric railway accountants' association
Sec. J. W. Welsh, 8 W. 40th St., New York
Annual meeting, Atlantic City, Oct. 8-11, '23

American electric railway association
Sec. J. W. Welsh, 8 W. 40th St., New York
Annual convention, Atlantic City, Oct. 8-13, '23
Midyear conference, St. Louis, March 4, '24

American electrochemical society
Sec. Colin G. Fink, 101 Park Ave., New York
Spring meeting, Philadelphia, April 24-26, '24
Fall meeting, Detroit, Sept. 25-27, '24

American electro-platers' society
Sec.-Treas. Frank J. Hanlon, 2921 George St., Chicago
Annual convention, Milwaukee, Wis., June 30-July 3, '24
Branch societies with names and addresses of secretaries and notices of meetings are published each month in the Brass World

American engineering council (formerly the Federated American engineering societies)
Sec. Lawrence W. Wallace, McLachlen Bldg., Washington, D.C.
Annual meeting of the American engineering council, Washington, D.C., Jan. 10-12, '24

American engineering standards committee
Sec. P. G. Agnew, 29 W. 39th St., New York
Annual meeting, New York, Dec. 14, '22

American face brick association
Sec. R. D. T. Hollowell, 130 N. Wells St., Chicago
Annual convention, French Lick Springs, Ind., Dec. 4-6, '23

American federation of arts
Sec. Miss Leila Mechlin, 1741 New York Ave., Washington, D.C.
Annual convention, Washington, D.C., May 17-19, '22

American foundrymen's association
Sec.-Treas. C. E. Hoyt, Marquette Bldg., Chicago
Annual convention, Cleveland, April 30-May 3, '23

American gas association
Sec.-Man. Alexander Forward, 342 Madison Ave., New York
Annual convention, Atlantic City, Oct. '24

American gear manufacturers' association
Sec. T. W. Owen, 2443 Prospect Ave., Cleveland
Semi-annual meeting, Lake Mohonk, N.Y., Oct. 25-27, '23
Annual meeting, Buffalo, April 28-30, '24

American gold and silver institute
Dir. H. N. Lawrie, Washington, D.C.
Institute will engage in statistical research and economic surveys in connection with transportation and taxation as well as assisting gold and silver producers

American hardware manufacturers' association
Sec.-Treas. F. D. Mitchell, 1819 Broadway, New York
Spring convention, Jacksonville, Florida, April 24-27, '23

American institute of accountants
Sec. A. P. Richardson, 135 Cedar St., New York
Annual meeting, Washington, D.C., Sept. 18-19, '23

American institute of architects
Sec. Edwin H. Brown, 1200 Second Ave., S., Minneapolis
Annual convention, Washington, D.C., May 16-18, '23

American institute of chemical engineers
Sec. John C. Olsen, Brooklyn Polytechnic Institute, Brooklyn, N.Y.
Semi-annual meeting, Denver, July 15-18, '24
Annual meeting, Pittsburgh, Dec. '24

American institute of chemists (formerly American institute of chemistry)
Sec. (Acting Sec.) L. R. Seidell, 80 Washington St., New York
Meeting, New York, Sept. 20, '23

American institute of consulting engineers
Sec. Col. F. A. Molitor, 143 Liberty St., New York
Annual meeting, Engineers' Club, New York, Jan. 16, '22

American institute of electrical engineers
Sec. F. L. Hutchinson, 33 W. 39th St., New York
Pacific Coast convention, Del Monte, Calif., Oct. 2-5, '23
Midwinter convention, Philadelphia, Feb. 4-8, '24
Spring convention, Birmingham, Ala., April 7-12, '24
Annual convention, Evanston, Ill., June 23-27, '24

American institute of fertilizer chemists
Sec.-Treas. W. J. Gascoyne, jr., 27 S. Gay St., Baltimore, Md.

American institute of lead manufacturers
Sec. 90 West St., New York

American institute of metals
Now a division of the American institute of mining and metallurgical engineers

American institute of mining and metallurgical engineers
Sec. Frederick F. Sharpless, 29 W. 39th St., New York
Fall meeting, Quebec, Aug. 20-31, '23
Annual meeting, New York, Feb. 18-21, '24

American institute of steel construction (formerly National steel fabricators' association)
Managing director. Lee H. Miller, 1052 Leader News Bldg., Cleveland
Annual meeting, Pittsburgh, Nov. 23, '22

American institute of weights and measures
Sec. C. C. Stutz, 115 Broadway, New York
Annual meeting, New York, Dec. 8, '22

American iron and steel institute
Sec. E. A. S. Clarke, 40 Rector St., New York
Annual meeting, New York, May 25, '23
Fall meeting, New York, Oct. 25, '23

American iron, steel and heavy hardware association
Sec. 47 W. 34th St., New York

American leather chemists' association
Sec. H. C. Reed, 22 E. 16th St., New York
Annual convention, White Sulphur Springs, W. Va., June 7-9, '23

American malleable castings association
Sec.-Treas. Robert E. Belt, 1900 Euclid Ave., Cleveland, O.
Annual meeting, Cleveland, Jan. '24

American management association
Sec. W. J. Donald, 20 Vesey St., New York
Annual meeting, New York, Oct. 29-31, '23
This society is an amalgamation of the National personnel association, the National association of corporation training, and the Industrial relations association of America

American manufacturers' export association
Sec. Maurice B. Dean, 160 Broadway, New York
Annual convention, New York, Oct. 3-5, '23

American marine association (formerly the Marine equipment association of America)
Sec. 15 Park Row, New York
American marine congress, New York, Nov. 5-10, '23

American mathematical association
Sec. R. G. Richardson, Brown University, Providence, R.I.
Annual meeting, Cambridge, Mass., Dec. 27-28, '22

American mathematical society
Sec. R. G. D. Richardson, Brown University, Providence, R.I.
Summer meeting, Vassar College, Poughkeepsie, N.Y., Sept. 6-8, '23

American merchant marine library association
Sec. C. C. Smith, 82 Beaver St., New York

American metric association
Sec. Howard Richards, jr., 156 Fifth Ave., New York
Annual meeting, Boston, Dec. 30, '22

American mining congress
Sec. James F. Callbreath, Munsey Bldg., Washington, D.C.
Annual convention, Milwaukee, Wis., Sept. 24-29, '23

American national retail jewelers' association
Sec. A. W. Anderson, Neenah, Wis.

American newspaper publishers association
Sec. John S. Bryan, c/o Richmond News Leader, Richmond, Va.
Annual meeting, New York, April 23-26, '23

American oil chemists' society (formerly Society of cotton products analysts)
Sec.-Treas. Thomas B. Caldwell, Law & Co., Wilmington, N.C.
Annual meeting, Hot Springs, Va., April 30-May 1, '23

American order of steam and electrical engineers
Corresponding engineer. William S. Wetzler, 753 N. 44th St., Philadelphia
Annual convention, Reading, Pa., June 4-8, '23

American paper and pulp association
Sec.-Treas. Dr. Hugh P. Baker, 18 E. 41st St., New York
Annual meeting, New York, April 10-17, '23
Semi-annual meeting, Chicago, Oct. 11, '23

American peat society
Sec. J. H. Beattie, U.S. Dept. of Agriculture, Washington, D.C.
Annual convention, Washington, D.C., Dec. 6-8, '23

American petroleum institute
Sec. R. L. Welch, 15 W 44th St., New York
Annual meeting, St. Louis, Mo., Dec. 10-15, '23

American pharmaceutical association
Sec. H. V. Arny, 115 W. 68th St., New York
Annual convention, Ashville, N.C., Sept. 3-8, '23

American pharmaceutical manufacturers' association
Sec.-Treas. Ralph R. Patch, 25 Congress St., Boston
Annual convention, Cleveland, Aug. 14-19, '22

American photoengravers' association
Sec.-Treas. O. F. Kwett, Northern Engraving Co., Canton, O.
Annual convention, Chicago, July 19-21, '23

American physical society
Sec. H. W. Webb, Columbia University, New York
Annual meeting, University of Cincinnati, Cincinnati, Dec. 27-29, '23
Meeting, New York, Feb. 23, '24
Meeting, Washington, April 25-26, '24

American pig iron association
Sec. John A. Penton, Penton Publishing Co., Cleveland
Annual meeting, Pittsburgh, Jan. 12, '22

American public health association
Sec. Homer N. Calver, 13 Van Dam St., New York
Annual meeting, Boston, Mass., Oct. 8-13, '23

American radio relay league
Dir. N. E. Wunderlich, 8327 Drexel Ave., Chicago

American railway association
Sec. J. E. Fairbanks, 75 Church St., New York
A complete list of the various divisions and sections of the American railway association, and also of all the other important railway associations, with convention dates and secretaries, is to be found in the first number of each month of the Railway Age.

American railway bridge and building association
Sec. C. A. Lichty, C. & N. W. Railway, 319 N. Waller Ave., Chicago
Annual convention, Kansas City, Mo., Oct. 21-23, '24

American railway development association
Sec. W. H. Hill, Agricultural Agent, c/o New York Central, Chicago
Semi-annual meeting, Chicago, Dec. 6-7, '23
Annual meeting, Savannah, Ga., May 14-16, '24

American railway engineering association
Sec. E. H. Fritch, 431 S. Dearborn St., Chicago
Annual meeting, Chicago, March 11-13, '24

American railway tool foremens' association
Sec. J. A. Duca, Tool Foreman, C.R.I. and P. Ry., Shawnee, Okla.

American road builders' association
Sec. (temp.) Miss Ethel A. Birchland, 37 W. 39th St., New York
Annual meeting, New York, May 15, '23
Annual convention and Good roads congress, Chicago, Jan. 14-19, '24

American short line railroad association
Sec. T. F. Whittelsey, Union Trust Bldg., Washington, D.C.
Annual meeting, Washington, D.C., May 9, '23
Annual convention, Chicago, Oct. 3-4, '23

American society for municipal improvements
Sec. Charles C. Brown, Dept. Public Works, St. Petersburg, Fla.
Annual convention, Memphis, Tenn., Nov. 12-16, '23

American society for steel treating (formerly American steel treaters' society)
Sec. W. H. Eisenman, 4600 Prospect Ave., Cleveland
Winter meeting, Chicago, Feb. 15-16, '23
Annual convention and International steel exposition, Pittsburgh, Pa., Oct. 8-12, '23
Annual convention, Boston, Sept. 22-26, '24

American society for testing materials
Sec. C. L. Warwick, University of Pennsylvania, Philadelphia
Annual meeting, Atlantic City, June 23-28, '24

American society of agricultural engineers
Sec. Raymond Olney, Mt. Clemens, Mich.
Annual meeting, Chicago, Nov. 8-10, '23

American society of biological chemists
Sec. Victor C. Meyers, 308 E. 20th St., New York

American society of civil engineers
Sec. John H. Dunlap, United Engineering Societies Bldg., 33 W. 39th St., New York
Annual convention, Chicago, July 11-13, '23
Fall meeting, Richmond, Va., Oct. 17-20, '23
Annual meeting, New York, Jan. 16-17, '24
Spring meeting, Atlanta, Ga., April 9-12, '24

American society of heating and ventilating engineers
Sec. Casin W. Obert, 29 W. 39th St., New York
Semi-annual meeting, Chicago, May 21-23, '23
Annual meeting, New York, Jan. 22-25, '24

American society of marine designers (formerly American society of marine draftsmen)
Sec. B. G. Barnes, 47 Saville Ave., Quincy, Mass.

American society of mechanical engineers
Sec. Calvin W. Rice, 29 W. 39th St., New York
Annual meeting, New York, Dec. 3-5, '23
Spring meeting, Cleveland, May 26-29, '24
Annual meeting, New York, Dec. 1-4, '24

American society of naval engineers
Sec.-Treas. Commander S. M. Robinson, Bureau of Engineering, Navy Dept., Washington, D.C.
Annual meeting, Washington, D.C., Oct. 3, '22

American society of refrigerating engineers
Sec. William H. Ross, 35 Warren St., New York
Annual meeting, New York, Dec. 1-3, '23
Spring meeting, Cleveland, May 27-29, '24

American society of safety engineers
Sec. G. S. Wood, 29 W. 39th St., New York
Annual meeting, New York, Jan. 18, '24

American society of sanitary engineering
Sec. Harvey A. Call, 3207 Park Ave., New York
Annual meeting, Davenport, Iowa, Sept. 11-14, '23

American specification institute
Sec. Gardner C. Coughlen, 19 S. LaSalle St., Chicago
Annual meeting, Chicago, May 1, '22

American statistical association
Sec.-Treas. Robert E. Chaddock, Columbia University, New York
Annual meeting, Chicago, Dec. 27-29, '22

American steel treaters' society
Now the American society for steel treating

American supply and machinery manufacturers' association
Sec. F. D. Mitchell, 4106 Woolworth Bldg., New York
Triple convention with the National supply and machinery dealers' association and the Southern supply and machinery dealers' association, Cleveland, O., May 19-21, '24

American trade executives' association
Sec.-Treas. W. B. Baker, National Association of Chair Manufacturers, 53 W. Jackson Boulevard, Chicago
Annual convention, Chicago, Oct. 24-26, '23

American valuation association
Sec. Stanley Williamson, Linde Air Products Co., 30 E. 42d St., New York
Special convention, Willard hotel, Washington D.C., Jan. 30-31, '22

American warehousemen's association
Sec. C. L. Criss, 1110 Bessemer Bldg., Pittsburgh, Pa.

American water works association
Sec. (Acting sec.) W. K. Niesley, 153 W. 71st St., New York
Annual convention, New York, May 19-21, '24

American welding society
Sec. Miss M. M. Kelly, 33 W. 39th St. New York
Fall meeting, Pittsburgh, Oct. 24-26, '23
Annual meeting, New York, April 23-25, '24

American wood preservers' association
Sec.-Treas. P. R. Hicks, Room 1146, Otis Bldg., Chicago
Annual meeting, Kansas City, Jan. 15-17, '24
Annual meeting, Chicago, Jan. '25

American zinc institute
Sec. Stephen S. Tuthill, 27 Cedar St., New York
Annual meeting, St. Louis, May '24

Army and navy air service association
Sec. Munsey Bldg., Washington, D.C.

Army ordnance association
Sec. Munsey Bldg., Washington, D.C.

Asphalt association
Sec. J. E. Pennybacker, 23 W. 43d St., New York
Annual convention, New York, Jan. 9, '24
Prepares specifications for asphalt roads

Associated advertising clubs of the world
Sec.-Treas. Jesse H. Neal, 220 W. 42d St., New York
Annual convention, London, '24

Associated business directory publishers
Sec.-Treas. F. A. Von Wieding, 334 Fourth Ave., New York
Meeting, Atlantic City, June 7, '23

Associated business papers, inc.
Sec. Jesse H. Neal, 220 W. 42d St., New York
Annual meeting, Chicago, Oct. 15-20, '23

Associated general contractors of America
Sec. Eugene Young, 111 W. Washington St., Chicago
Annual meeting, Chicago, Jan. 21-23, '24

Associated manufacturers of electrical supplies
Sec. Frederic Nicholas, 30 E. 42d St., New York
Fall meeting, New York, Nov. 8, '23
Annual meeting, Atlantic City, June 24-27, '24

Associated metal lath manufacturers
Commissioner, Wharton Clay, 123 Madison St., Chicago

Associated traffic clubs of America
Sec. B. L. Birkholtz, 277 Broadway, New York
Annual convention, Indianapolis, Ind., May 23-24, '24

Association of arts and industries
Sec. Norma K. Stahle, 230 E. Ohio St., Chicago

Association of Chinese and American engineers
Sec. P. Y. Tsai, c/o The Chuchow-Chinchow Railway, Peking

Association of collegiate schools of architecture
Sec. Clarence A. Martin, Cornell University, Ithaca, N.Y.
Annual meeting, Chicago, June 5-6, '22

Association of Edison illuminating companies
Sec. Preston S. Millar, Electrical Testing Laboratories, East End Ave. and 80th St., New York
Annual meeting, Dixville Notch, N.H., Sept. 17-21, '23

Association of electragists international
Sec. Lawrence W. Davis, 15 W. 37th St., New York
Annual convention, West Baden Springs, West Baden, Ind., Dec. 1-4, '23
Annual convention, West Baden Springs, Ind., Oct. 5, '24
Formerly known as the National Association of electrical contractors and dealers, and as the international association of electragists

Association of employees' clubs
Sec. J. Marshall, Alexander Hamilton Inst., 13 Astor Place, New York
Organization meeting, Times Bldg., New York, May 25, '21

Association of governmental labor officials of the United States and Canada
Sec.-Treas. Miss Louise Schutz, Industrial Commission, 612 Bremer Arcade, St. Paul, Minn.
Annual convention, Richmond, Va., May 1-4, '23

Association of iron and steel electrical engineers
Sec. John F. Kelly, Empire Bldg., Pittsburgh
Annual convention and exposition, Buffalo, N.Y., Sept. 24-28, '23
Fuel saving conference, Pittsburgh, April 2-3, '24

Association of jute and cotton bag manufacturers
Sec.-Treas. T. M. Gallie, 8 W. 40th St., New York

Association of national advertisers, inc.
Sec.-Treas. John Sullivan, 15 W. 46th St., New York
Semi-annual meeting, Chicago, May 10, '22
Annual meeting, Atlantic City, Nov. 22-24, '22

Association of natural gasoline manufacturers
Pres. D. E. Buchanan, Chestnut and Smith Corp., Tulsa, Okla.
Annual convention, Tulsa, Okla., April 26, '23

Association of official agricultural chemists
Sec.-Treas. W. W. Skinner, Bureau of Chemistry, Washington, D.C.
Annual meeting, Washington, D.C., Nov. 19-21, '23

Association of railway electrical engineers
Sec.-Treas. Joseph A. Andreucetti, Room 413, C. & N. W. Terminal Station, Chicago
Annual convention, Chicago, Nov. 6-9, '23

Association of railway executives
Chairman, Stanley J. Strong, Transportation Bldg., 17th and H Sts., N.W., Washington, D.C.

Association of scientific apparatus makers of the U.S.A.
Sec. J. M. Roberts, 460 E. Ohio St., Chicago
Annual meeting, Washington, D.C., April 18, '24

Atlantic deeper waterways association
Sec.-Treas. Wilfred H. Schoff, Real Estate Trust Bldg., Philadelphia
Annual convention, Portland, Me., Nov. '22

Auto bus association of New York state
Sec.-Treas. James J. Dadd, 120 Vermont Ave., Rochester, N.Y.
Annual meeting, Binghamton, N.Y., March 15, '23

Automotive associations
A list of automobile shows, foreign as well as American, and of conventions and meetings is published each week in Automotive Industries

Automotive equipment association
Sec. 461 Eighth Ave., New York
Summer convention, Dixville Notch, N.H., June 25-July 1, '23
Annual convention, Chicago, Nov. 12-17, '23

Aviation clubs
A list of aviation clubs is published from time to time in Aviation

Bakers and millers technical club
Sec. C. A. Paesch, 958 Montana St., Chicago

Bankers' association for foreign trade
Sec. F. M. Horton, Central National Bank Savings and Trust Company, Cleveland, O.
Annual convention, Hotel Cleveland, Cleveland, Feb. 9-10, '22

Better business letters association
Sec. Louis Balsam, 770 Penobscot Bldg., Detroit
Annual convention, Cincinnati, Oct. 25-27, '22

Boston society of civil engineers
Sec. John B. Babcock, 715 Tremont Temple, Boston
Annual meeting, Boston, Mar. 21, '23

British electrical and allied manufacturers' association
World power conference and British Empire exhibition, Wembley, London, June 30-July 12, '24
Organizing director, D. N. Dunlop, c/o British electrical and allied manufacturers' association, London

British iron and steel institute
Sec. George C. Lloyd, 28 Victoria St., London, S.W. 1
Annual meeting, London, May 10-11, '23

Building officials' conference
Sec.-Treas. F. W. Lumis, Springfield, Mass.
Annual meeting, Toledo, O., April 24-27, '23

California motor carriers' association
Sec. James G. Blaine, 1290 Bush St., San Francisco
Annual meeting, San Francisco, Dec. 13, '22

Canadian association of stationary engineers
Sec. George J. Soucey, Toronto
Annual convention, Toronto, June 25-28, '23

Canadian deep waterways and power association
Sec.-Treas. Maj. Alex. C. Lewis, Toronto
Annual convention, Hamilton, Ont., Nov. 1-2, '21

Canadian electric railway association
Sec. Eustace Smith, jr., Toronto Transportation Commission, Toronto
Annual convention, Toronto, June 27-30, '23

Canadian electrical association
Sec. Louis Kon, 65 McGill College Ave., Montreal
Annual convention, Montreal, June 20-23, '23

Canadian engineering standards association
Sec. Richard J. Durley, 638-9 Jackson Bldg., Toronto

Canadian gas association
Sec.-Treas. (Acting) E. A. Hills, Consumers' Gas Co., Toronto
Annual convention, Ottawa, Ont., Aug. 23-24, '23

Canadian good roads association
Sec. George A. McNamee, 909 New Birks Bldg., Montreal, Que.
Annual convention, Hamilton, Ont., June 11-14, '23

Canadian institute of chemistry
Sec. C. E. Wallin, Sydney, Nova Scotia
Annual meeting, Toronto, Ont., May 29-31, '23

Canadian institute of mining and metallurgy
Sec.-Treas. G. C. Mackenzie, Montreal, Quebec
Annual meeting, Toronto, March 5-7, '24

Canadian national clay products association
Sec.-Treas. Gordon Keith, 435 Grace St., Toronto
Annual meeting, Hamilton, Ont., Jan. 24-26, '23

Canadian society of civil engineers
Now the Engineering institute of Canada

Carnegie institute of economics
Sec. 26 Jackson Place, N.W., Washington D.C.

Chamber of commerce of the United States
Sec. D. A. Skinner, Mills Bldg., Washington, D.C.
Annual meeting, Cleveland, O., May 6-8, '24

Chemical equipment association
Sec. Roberts Everett, 1328 Broadway, New York
Annual meeting, New York, Sept. 20, '23

Chemical foundation
Sec. R. Buffum, 81 Fulton St., New York

China society of America
American headquarters, 19 W. 44th St., New York

City managers' association
Sec. John G. Stutz, Lawrence, Kan.
Annual meeting, Washington, D.C., Nov. 13-15, '23
Annual convention, Montreal, Nov. '24

City planning institute
Sec. Flavel Shurtleff, 19 Congress St., Boston, Mass.

Clearwater timber protective association
Sec.-Treas. Theodore Fohl, Orafino, Idaho

Coal mining institute of America
Sec. H. D. Mason, jr., Chamber of Commerce Bldg., Pittsburgh, Pa.
Annual meeting, Pittsburgh, Dec. 19-21, '23

Common brick manufacturers' association of America
Sec. Ralph P. Stoddard, Cleveland Discount Bldg., Cleveland
Annual convention, Los Angeles, Feb. 11, '24

Compressed air society
Sec. C. H. Rohrbach, 50 Church St., New York

Compressed gas manufacturers' association
Sec. John H. Hayes, 120 W. 42d St., New York
Annual meeting, New York, Jan. 15, '23

Concrete products association
Sec. J. E. Montgomery, Chicago

Conference of state sanitary engineers
Sec.-Treas. Theodore Horton, New York State Department of Health, Albany
Annual conference, Washington, D.C., May 17-18, '22

Conference on highway engineering and highway transport education
Sec. Walter C. John, 127 Kentucky Ave., S. E., Washington, D.C.
Annual conference, University of Michigan, Ann Arbor, Mich., Feb. 11-14, '24

Conference on weights and measures
15th annual conference, Bureau of Standards, Washington, D.C., May 23-26, '22

Cooperative league of America
Sec. J. F. McNamee, Editor, Brotherhood of Locomotive Firemen and Enginemen's Magazine, Cleveland, O.

Cooperative society of America
Sec. 130 N. Wells St., Chicago

Copper and brass research association
Sec. George A. Sloan, 25 Broadway, New York
Annual meeting, New York, Nov. 15, '23

Cost association of the paper industry
Sec. T. J. Burke, 18 E. 41st St., New York
Annual convention, Cleveland, May 24-25, '23

Custer battlefield highway association
Sec. W. D. Fisher, Sheridan, Wyoming
Annual meeting, Sheridan, Wyo., Aug. 9-10, '22

Direct mail advertising association
Sec.-Treas. Frank L. Pierce, 770 Penobscot Bldg., Detroit
Annual convention, St. Louis, Oct. 24-26, '23

Dixie highway association
Sec. M. B. Roberts, 302 First National Bank Bldg., Chattanooga, Tenn.
Annual convention, Jacksonville, Fla., May 26-27, '22

Drop forge supply association
Sec.-Treas. A. W. Wurster, c/o Heppenstall Forge & Knife Co., Philadelphia, Pa.
Annual convention, Detroit, Oct. 3, '22

Eastern railroad association
Sec. E. N. Bessling, 614 F St., N.W., Washington, D.C.
Annual meeting, New York, May 10, '23

Electric associations
A complete directory of electrical associations with convention dates and secretaries is published in the first issue of each volume of the Electrical World in January and July

Electric power club
Sec. J. M. Barr, c/o Louis Allis Co., 30 Church St., New York
Semi-annual meeting, French Lick Springs, Ind., Nov. 19-22, '23
Annual meeting, Seaview Golf Club, Absecon, N.J., May 26-29, '24

Electric steel founders' research group
Director. R. A. Bull, 639 Diversey Parkway, Chicago
Meeting, Wernersville, Pa., May 14-17, '23

Electrical manufacturers' club
Sec. Sanford B. Belden, Jeffrey Mfg. Co., Columbus, O.
Annual meeting, Hot Springs, Va., Nov. 14-18, '23

Electrical manufacturers' council
Sec. Frederick Nicholas, 30 E. 42d St., New York
Meeting, Cleveland, Jan. 18, '24

Electrical safety conference
Sec. Dana Pierce, 109 Leonard St., New York

Electrical supply jobbers' association
Sec. Franklin Overbagh, 411 South Clinton St., Chicago
Annual convention, Buffalo, Nov. 12-15, '23
Annual meeting, Hot Springs, Va., June 4-6, '24

Engineering advertisers' association
Sec. N. C. Tompkins, c/o Creamery Package Manufacturing Co., 61 W. Kinze St., Chicago
Annual meeting, Chicago, May 28, '23

Engineering foundation
Sec. Alfred D. Flinn, 29 W. 39th St., New York

Engineering institute of Canada (formerly Canadian society of civil engineers)
Sec. Fraser S. Keith, 176 Mansfield St., Montreal, Quebec
Annual meeting, Montreal, Jan. 22, and Ottawa, Jan. 23-24, '24

Engineering society of western Pennsylvania
Sec. Kenneth F. Treschow, 568 Union Arcade Bldg., Pittsburgh, Pa.
Annual meeting, Pittsburgh, Jan. 22, '24

Engineers' club of Philadelphia
Sec. H. E. Hopkins, 1317 Spruce St., Philadelphia

Export publishers' association
Sec. R. M. Dodson, editor of Pacific Ports, Central Building, Seattle, Wash.

Eye sight conservation council of America, inc.
Dir. Guy A. Henry, Times Bldg., New York

Federal highway council
Sec. H. G. Shirley, Washington, D.C.

Federated American engineering societies
Now the American engineering council

Federated engineers' development corporation
Sec. 154 Ogden Ave., Jersey City, N.J.
Aim is to advise about and sponsor new inventions

Financial advertisers' association
Sec. Lloyd L. Coon, 135 W. Washington St., Chicago
Midwinter conference, New York, Feb. 14-15, '24

Franklin institute
Sec. R. B. Owens, Franklin Institute, Philadelphia, Pa.
Annual meeting, Philadelphia, Jan. 16, '24

Gas associations
A list of the principal gas associations, with officers and place and date of annual meeting, is published occasionally in the Gas Age

Gas products association
Sec. C. T. Price, 140 S. Dearborn St., Chicago
Annual meeting, Chicago, Jan. 17-19, '24

Geological society of America
Sec. Edmund O. Hovey, American Museum of Natural History, New York
Annual meeting, Washington, D.C., Dec. 27-29, '23

Governmental research conference
Sec. Dr. L. D. Upson, 542 Griswold St., Detroit, Mich.

Great Lakes, Hudson and Atlantic waterways association
Sec. 268 Pearl St., New York City

Great Lakes protective association
Sec. George A. Marr, Rockefeller Bldg., Cleveland, O.

Heating and piping contractors' national association
Sec. Henry B. Gombers, 50 Union Square, New York
Annual convention, Atlantic City, May 26-29, '24

Highway industries exhibitors' association
Sec. 400 N. Michigan Blvd., Chicago
Good roads show, Chicago, Jan. 15-19, '23

Hollow building tile association
Sec. J. S. Sleeper, (Acting Sec.) 111 W. Washington St., Chicago
Annual meeting, Chicago, Jan. '24

Home beautiful exposition
Manager. Chester I. Campbell, 5 Park Sq., Boston, Mass.
Exposition, Mechanics Bldg., Boston, April 25-29, '22

Hydraulic society
Sec. C. H. Rohrbach, 50 Church St., New York

Ice and refrigeration societies
Notices of national and state associations are published each month in Refrigerating World

Illuminating engineering society
Sec. Norman D. MacDonald, Electrical Testing Co., 80th St., and East End Ave., New York
Annual meeting, Lake George, New York, Sept. 24-28, '23

Industrial advertising association
Sec. H. N. Baum, c/o Celite Products Co., 53 W. Jackson Blvd., Chicago
Organization meeting, Milwaukee, June 11-15, '22

Industrial cost association
Sec. H. D. Starr, 50 Church St., New York
Conference, New York, May 18, '22

Industrial relations association of America
(formerly National association of employment managers)
The work of this association has been taken over by the National personnel association

Institute for government research
Sec. 26 Jackson Place, Washington, D.C.
An association of citizens for cooperating with public officials in the scientific study of government

Institute of American meat packers
Sec. Robert G. Gould, Old Colony Bldg., Chicago
Annual convention, Atlantic City, Sept. 17-19, '23

Institute of economics
Pres. Robert S. Brookings, 16th and R Sts., N.W., Washington, D.C.
Organization meeting, Washington, D.C., April 21, '22

Institute of paint and varnish research
Sec. G. B. Heckel, 509 The Bourse, Philadelphia

Institute of radio engineers
Sec. A. N. Goldsmith, College of the City of New York, New York

International association of electragists
Now the Association of electragists international

International association of fire engineers
Sec. James T. Mulcahey, 197 Buena Vista Ave., Yonkers, N.Y.
Annual convention, Municipal auditorium, San Francisco, Aug. 15-18, '22

International association of municipal electricians
Sec. William Arbuckle, 99 W. 41st St., Bayonne, N.J.
Annual convention, Reading, Pa., Sept. 25-28, '23

International association of printing house craftsmen
Sec. Louis M. Augustine, 38 White Ave., Hamilton, Md.
Annual convention and Graphic Arts Exposition, Mechanics Bldg., Boston, Mass., Aug. 28-Sept. 2, '22

International association of street sanitation officials
Sec. A. M. Anderson, 1340 Old Colony Bldg., Chicago
Annual conference, Chicago, Sept. 27-28, '23

International bureau of weights and measures
Director, Charles E. Guillaume, St. Cloud, Seine-et-Oise, France

International chamber of commerce
Sec. Dr. Edward Dolleans (temporary sec.), University of Dijon, Dijon, France
Sec., American section, Lacey C. Zapf, Mills Bldg., Washington, D.C.
Annual meeting, Rome, Italy, March 19-26, '23

International commission on illumination
Asst. Sec. J. W. T. Walsh, National Physical Laboratory, Teddington, England
Meeting, Paris, Sept. '21
Meetings are held every three years

International congress of architects
Sec. of the American section, George Oakley Totten, jr., 808 17th St., Washington, D.C.
Tenth congress, Brussels, Sept. 4-11, '22

International congress of master printers
Sec. Bruno Zachrisson, Gothenburg, Sweden
1st Congress, Gothenburg, Sweden, June 4-6, '23

International electric protective association
Sec.-Treas. F. F. Rowell, c/o Holmes Electric Protective Co., 26 Cortland St., New York
Organization meeting, Chicago. July 28, '22

International electrochemical commission
General Sec. C. le Maistre, 28 Victoria St., Westminster, London, S.W., England
Meeting, Geneva, Switzerland, Nov. 18-25, '22
International body representing national electrical societies contributing to its support

International engineering congress
Congress held at Rio de Janeiro in connection with the Brazilian international exposition, Sept. 7-30, '22

International garden cities and town planning association
International conference, Gothenburg, Sweden, July 27-Aug. 12, '23

International mining convention
Exec. Chairman. Henry M. Parks, Director, Oregon Bureau of Mines and Geology, Oregon Bldg., Portland, Ore.
Meeting, Nelson, B. C., June, '22

International motor transport congress
See the National automobile chamber of commerce

International railway congress association
Sec. L. Weissenbruch, 11 Rue de Louvian, Brussels, Belgium
9th congress, Rome, Italy, April 19-May 1, '22
Congress, London, 1925

International railway fuel association
Sec. J. G. Crawford, 702 E. 51st St., Chicago
Annual convention, Chicago, May 26-29, '24

International street and interurban railway and bus association
Sec. Dr. Arthur Ertel, Favoritenstrasse 9, Vienna
Organization meeting, Nuremberg, Nov. 19, '20
Meeting, Vienna, May 29-June 3 '21
Meeting, Brussels, Feb. 18, '22
Convention, Budapest, '23

International typographical union
Sec. J. W. Hays, 640-50 Newton Claypool Bldg., Indianapolis
Annual convention, Atlantic City, Sept. 11-15, '22

International union of pure and applied chemistry
Sec., American delegation, Edward W. Washburn, University of Illinois, Urbana, Ill.
Meeting, Lyons, France, June 27-July 2, '22

International union of radio telegraphy
Corresponding sec. of American section, Augustus Trowbridge, 1150 Connecticut Ave., Washington, D.C.

International union of steam and operating engineers
Sec. Dave Evans, 6334 Yale Ave., Chicago
Annual convention, Detroit, Sept. 10-15, '23

Inventors' league of the United States
Sec. George W. Whigelt, 114 Maiden Lane, New York

Investment bankers' association of America
Sec. Frederick R. Fenton, 38 S. Dearborn St., Chicago
Annual convention, Washington, D.C., Oct. 29-31, '23

Lake carriers' association
Sec.-Treas. George A. Marr, Rockefeller Bldg., Cleveland, O.

League of the Southwest
Sec. F. E. Weymouth, U.S. Reclamation Service, Denver, Col.
An organization for studying the problems connected with the development of the Colorado river

Lighting fixture dealers' society of America
Sec. J. L. Wolf, Electrical league, Hotel Statler, Cleveland
Annual convention, Cleveland, Jan. 15-20, '23

Linseed oil association
Sec. George Fortmyer, National Lead Co., 111 Broadway, New York

Manufacturers' aircraft association
Sec. Chance M. Vought, c/o Lewis and Vought Corporation, Long Island City, N.Y.
The collecting and disseminating of information regarding aeronautical activities and the publishing of the Aircraft Year Book, formerly duties of this association, have been taken over by the Aeronautical chamber of commerce of America. The Manufacturers' aircraft association will continue to handle the administration of the cross license agreements covering airplane patents

Manufacturing chemists' association of the United States
Sec. John I. Tierney, Woodward Building, Washington, D.C.
Annual meeting, New York, June, '23

Marine equipment association of America
Now the American marine association

Master boiler makers' association
Sec. Harry D. Vought, 95 Liberty St., New York
Annual convention, Chicago, May 20-23, '24

Mathematical association of America
Sec W. D. Cairns, Oberlin College, Oberlin, Ohio
Annual meeting, Cambridge, Mass., Dec. 28-29, '22

Mineralogical society of America
Sec. H. P. Whitlock, American Museum of Natural History, New York

Mining and metallurgical society of America
Sec. Donald M. Liddell, 2 Rector St., New York
Annual meeting, New York, Dec. 7-13, '22

Mississippi valley association
Sec. John M. Gill, Kansas City, Mo.
Aim of the society is to promote the Valley's foreign commerce

Motor bus associations
A list of national and local associations together with the names and addresses of secretaries and dates of conventions is published each month in Bus Transportation

National academy of science
Sec. David White, Geological Survey, Washington, D.C.

National advisory committee for aeronautics
Sec. S. W. Stratton, 2722 Navy Bldg., 17th & B Sts., N.W., Washington, D.C.
Semi-annual meeting, Navy Building, Washington, D.C., April 20, '22
Annual meeting, Langley Field, Hampton, Va., Oct. 19, '22

National aeronautic association of the United States of America
Sec. Dudley M. Outcault, Grisard Field Co., Cincinnati
Annual meeting, St. Louis, Oct. 2, '23
This association is an amalgamation of the Aero club of America and the National air association

National air association
Sec. Rex L. Uden, Cleveland, O.
This association, together with the Aero club of America, has been amalgamated into the National aeronautic association of the United States of America

National amateur wireless association
Sec. H. L. Welker, 326 Broadway, New York

National association of brass manufacturers
Sec. W. M. Webster, City Hall Square Bldg., Room 1813, Chicago
Fall meeting, Cleveland, Sept. 11-13, '23
Annual convention, New York, Dec. 12-13, '23
Spring meeting, West Baden Springs, West Baden, Ind., March 12-14, '24

National association of builders' exchanges
Sec. Dan Alexander, Atlanta, Ga.
Meeting, Hotel Chisca, Memphis, Tenn., Feb. 20-23, '22

National association of commercial organization secretaries
Sec.-Treas. Joseph F. Leopold, Des Moines, Iowa
Annual convention, Cincinnati, Oct. 29-31, '23

National association of corporation training
The work of this association has been taken over by the National personnel association

National association of cost accountants
Sec. Stuart C. McLeod, 130 W. 42d St., New York
Annual convention, Buffalo, Sept. 10-15, '23

National association of cotton manufacturers
Sec. H. C. Meserve, 45 Milk St., Boston
Annual meeting, Providence, R.I., April 25-26, '23
Semi-annual meeting, Boston, Oct. 31-Nov. 1, '23

National association of credit men
Sec.-Treas. J. H. Tregoe, 41 Park Row, New York
Annual convention, Indianapolis, June 5, '22

National association of electrical contractors and dealers
Now the Association of electragists international

National association of electrical inspectors
Exec.-Sec. T. H. Day, 59 Deerfield Ave., Hartford, Conn.

National association of engine and boat manufacturers
Sec. Ira Hand, 29 W. 39th St., New York
Annual meeting, New York, Feb. 23, '22

National association of farm equipment manufacturers
Exec.-Chairman. Findley P. Mount, Advance-Rumely Co., La Porte, Ind.
Annual convention, Cleveland, Ohio. Oct. 24-26, '23

National association of ice industries
Sec. Leslie C. Smith, 163 W. Washington St., Chicago
Annual convention, Cleveland, Nov. 13-16, '23

National association of leather belting manufacturers
Sec. George H. Blake, P. O. Box 859, City Hall Station, New York
Annual meeting, New York, Nov. 21, '23

National association of manufacturers
Sec. George S. Boudinot, 50 Church St., New York
Annual meeting, New York, May 14-20, '23

National association of master plumbers
Sec. J. F. Hanley, 14th Ward B and L Bldg., Newark, N.J.
Annual convention, West Baden, Ind., June 24-26, '24

National association of music merchants
Sec. Matt J. Kennedy, 209 South State St., Chicago
Annual convention, Chicago, June 4-7, '23

National association of office managers
Sec. G. S. Childs, Alexander Hamilton Institute, Astor Place, New York
Annual conference, Detroit, June 14-16, '23

National association of practical refrigerating engineers
Sec. Edward H. Fox, 5707 West Lake St., Chicago
Annual convention, Memphis, Tenn., Dec. 12-16, '23
Annual convention, New Orleans, Dec., '24

National association of purchasing agents
Sec. W. L. Chandler, 19 Park Place, New York
Annual convention, Boston, May 20-23, '24

National association of railroad tie producers
Sec. J. S. Penney, c/o T. J. Moss Tie co., St. Louis, Mo.
Annual meeting, Kansas City, Jan. 17-18, '24

National association of railway and utilities commissioners
Sec. James B. Walker, 49 Lafayette St., New York
Annual convention, Phoenix, Ariz., Nov. 11, '24
Annual meeting, Chicago, Jan. '25

National association of sales managers
Sec. C. H. Rohrbach, 50 Church St., New York
Organization meeting, Atlantic City, June 7, '23
Now merged with American management association

National association of sheet metal contractors
Sec. Edwin L. Seabrook, 261 South 4th St., Philadelphia
Annual convention, Washington, D.C., June '24

National association of stationary engineers
Sec. Frederick W. Raven, 417 S. Dearborn St., Chicago
Annual convention, Grand Rapids, Mich., Sept. 8-13, '24

National automobile chamber of commerce
Sec. F. W. Fenn, 366 Madison Ave., New York
International motor transport congress, Detroit, May '24

National boll weevil control association
Organization meeting, New Orleans, Nov. 17, '23

National brick manufacturers' association
Sec. Theo. E. Randall, 211 Hudson St., Indianapolis
Annual meeting, Cleveland, Feb. 5-11, '23

National bureau of economic research, inc.
Sec. Oswald W. Knauth, 175 Ninth Ave., New York

National cinder concrete products association
Sec. J. Edwin Rutter, Cameron and Reilly Sts., Harrisburg, Pa.
Organization meeting, Philadelphia, Sept. '23

National civic federation
Sec. D. L. Tease, 1 Madison Ave., New York
Annual meeting, Hotel Astor, New York, Jan. 30-31, '22

National clay products industries association
Sec. 133 W. Washington St., Chicago
Annual meeting, Chicago, April 21, '22

National coal association
Exec. Sec. Harry L. Gandy, Commercial National Bank Bldg., Washington, D.C.
Annual meeting, St. Louis, May 16, '23

National concrete stave silo association
Sec. W. G. Kaiser, 111 W. Washington St., Chicago
Annual convention, Chicago, Dec. 5-7, '22

National conference of business paper editors
Sec.-Treas. A. G. Oehler, c/o Railway Electrical Engineer, 30 Church St., New York
Annual meeting, Middletown, O., March 26-27, '23
Convention, Chicago, Oct. 15-20, '23

National conference on city planning
Sec. Flavel Shurtleff, 19 Congress St., Boston, Mass.
Annual conference, Los Angeles, April 7-10 '24

National conference on highway traffic regulations
Sec.-Treas. D. R. Faries, Automobile Club of Southern California, 1344 South Figueroa St., Los Angeles, Cal.

National conference on state parks
Sec. Edgar E. Harlan, Des Moines, Iowa
Conference, Bear Mountain Inn, Palisades Park, New York, May 22-25, '22

National container association
Sec.-Treas. B. C. Tamlin, Room 638, Transportation Bldg., Chicago
Organization meeting, Chicago, May 22-23, '23

National cooperative convention. See Cooperative league of America

National council of American importers and traders
Sec. Franklin Van Leer, jr., 45 E. 17th St., New York
Annual meeting, New York, May, '23

National council of lighting fixture manufacturers
Sec. Charles H. Hofrichter, 231-233 Gordon Square Bldg., Cleveland
Annual convention, Cleveland, Jan. 11-15, '23
Midsummer meeting, Buffalo, N.Y., June 26-28, '23

National crushed stone association
Sec. A. P. Sandles, 405 Hartman Bldg., Columbus, Ohio
Annual convention, Chicago, Jan. 15-17, '23

National district heating association
Sec. 112 W. Fourth St., New York
Annual convention, June 11-13, '24

National drainage congress
Sec. C. R. Thomas, 1163 Monadnock Bldg., Chicago
Annual meeting, St. Louis, Jan. 16-17, '24

National editorial association
Sec. H. C. Hotaling, 709 Exchange Bank Bldg., St. Paul, Minn.
Annual convention, Saratoga, N. Y. July '23

National electric light association
Exec.-Manager. M. H. Aylesworth, 29 W. 39th St., New York
Annual convention, Atlantic City, May 19-23, '24

National electrical credit association
Sec. Frederick P. Vose, 1350 Marquette Bldg., Chicago
Annual meeting, Boston, Aug. 9-10, '23
Spring meeting, Chicago, May 22-23, '24

National federation of construction industries
Sec. John C. Frazee, Drexel Bldg., Philadelphia
Annual meeting, Hotel Drake, Chicago, April 3-5, '22

National federation of export managers
Chairman. Oren D. Gallup, Simonds Mfg. Co., Fitchburg, Mass.

National federation of remedial loan associations
Sec.-Treas. John E. Ryan, 708 Breitmeyer Bldg., Detroit, Mich.
Annual convention, Washington, D.C., May 25-27, '22

National fertilizer association
Sec. John D. Toll, 1010 Arch St., Philadelphia
Annual convention, Asheville, N.C., June 9, '24

National fire protective association
Sec. Franklin H. Wentworth, 40 Central St., Boston, Mass.
Sec., Electrical committee, Ralph Sweetland, 141 Milk St., Boston
Annual meeting, Atlantic City, May 13-15, '24

National foreign trade council
Sec. O. K. Davis, Hanover Sq., New York
Annual meeting, Boston, June 4-6, '24

National founders' association
Sec. J. M. Taylor, 29 S. La Salle St., Chicago
Annual convention, New York, Nov. 21-22, '23

National hardware association of the United States
Sec.-Treas. 505 Arch St., Philadelphia
Annual convention, Atlantic City, Oct. 17-20, '22

National highway traffic association
Sec. Elmer Thompson, Automobile club of America, 247 W. 54th St., New York
Annual convention, New York, May 10, '23
Joint meeting with the Michigan good roads association, Michigan Agricultural College, East Lansing, Mich., Nov. 6, '23

National housing association
Sec. Lawrence Veiller, 105 East 22nd St., New York

National implement and vehicle association
Sec. Henry J. Sameit, 806 S. Dearborn St., Chicago

National industrial advertising association
Sec. H. N. Baum, c/o Celite Products Co., Chicago
Organization meeting, Milwaukee, June 15, '22

National industrial conference board
Comptroller. James M. Robertson, 10 E. 39th St., New York
National immigration conference, New York, Dec. 13-14, '23

National industrial council
Sec.-Treas. Earl Constantine, 50 Church St., New York
Semi-annual conference of the Advisory Committee and state industrial association executives, New York, May 11-13, '22

National industrial traffic league
Sec. J. H. Beck, 111 W. Washington St., Chicago
Spring meeting, Dallas, Tex., April 18-19, '23
Annual meeting, Chicago, Nov. 14-15, '23
Annual meeting, New York, Nov. 19-20, '24

National institute of inventors
Sec. R. Nerenstone, 118 Fulton St., New York

National lime association
Sec. (Acting sec.) Burton A. Ford, Mather Bldg., 918 G St., N.W., Washington, D.C.
Annual convention, New York, June 13-15, '23

National lumber manufacturers' association
Sec.-Manager. Wilson Compton, Transportation Bldg., Washington, D.C.
American lumber congress, Chicago, Feb. 6-7, '23

National machine-tool builders' association
Sec. Ernest F. DuBrul, 81 Provident Bank Bldg., Cincinnati
Annual meeting, Lenox, Mass., Oct. 2-4, '23

National marine league of the United States of America
Sec. J. H. Kitchin, 268 Pearl St., New York
Annual meeting, New York, Jan. '22
Publishes for free distribution articles on American merchant marine problems

National merchant marine association
Sec. Munsey Bldg., Washington, D.C.
Annual convention, Washington, D.C., March 3, '22

National metal trades association
Sec. Louis W. Fischer, People's Gas Bldg., Chicago
Annual convention, New York, April 23-24, '24

National motor transport association
Sec. E. B. Burritt, 250 W. 57th St., New York
Organization meeting, New York, Nov. 16, '23

National municipal league
Sec. Harold W. Dodds, 261 Broadway, New York
Annual meeting, Washington, D.C., Nov. 15-17, '23

National museum of engineering and industry
Sec. (Acting Sec.) H. F. J. Porter, 67 W. 12th St., New York

National paint, oil and varnish association
Sec. George F. Horgan, 342 Madison Ave., New York
Annual convention, Chicago, Oct. 17-19, '23

National paper trade association
Sec. William Ridgeway, 41 Park Row, New York
Annual meeting, New York, April 10, '23

National paving brick manufacturers' association
Sec. Edward E. Duff, jr., Engineers Bldg., Cleveland
Annual convention, Cincinnati, Jan. 22-23, '24

National personnel association
Now the American management association

National petroleum association
Sec. C. D. Chamberlain, Guard Bldg., Cleveland
Annual meeting, Atlantic City, Sept. 19-21, '23

National petroleum marketers' association
Sec. 624 S. Michigan Ave., Chicago

National pipe and supplies association
Sec.-Treas. George D. McIlvaine, 908 Oliver Bldg., Pittsburgh
Annual convention, Cincinnati, May 15-16, '23

National radio chamber of commerce
Sec. George Lewis, 165 Broadway, New York
Organization meeting, Washington, D.C., July 26, '23

National research council
Sec. Vernon Kellogg, 1701 Massachusetts Ave., Washington, D.C.
Annual meeting of the Advisory board on highway research, Washington, D.C., Nov. 8, '23

National rivers and harbors congress
Sec. S. A. Thompson, Colorado Bldg., Washington, D.C.
Congress, Washington, D.C., Dec. 5-6, '23

National safety council
Sec. W. H. Cameron, 166 N. Michigan Ave., Chicago
Mid year conference, Chicago, April 17, '23
Annual safety congress, Louisville, Ky., Sept. 29-Oct. 3, '24

National sand and gravel producers' association
Sec. T. R. Borrows, 903 Munsey Bldg., Washington, D.C.
Annual meeting, Washington, D.C., Jan. 24-26, '23

National sheet metal products association
Sec. D. C. Jones, 1016 Commerce Bldg., St. Paul, Minn.

National slag association
Sec.-Treas. H. J. Love, Cleveland
Annual meeting, Cleveland, Feb. 16, '23

National slate association
Sec. W. S. Hays, Drexel Bldg., Philadelphia
Annual convention, New York, Jan. 22-23, '23

National society for vocational education
Sec. Miss Clothilde Ware, 140 W. 42d St., New York
Annual convention, Buffalo, Dec. 6-8, '23

National steel fabricators' association
Now American institute of steel construction

National structural steel society
Sec. C. J. McIntosh, c/o Federal Bridge & Structural Co., Waukesha, Wis.
Meeting, Massillon, O., Aug. '21

National supply and machinery dealers' association
Sec. 505 Arch St., Philadelphia
Triple convention with the American supply and machinery manufacturers association and the Southern supply and machinery dealers' association, Cleveland, May 19-21, '24

National terra cotta society
Sec. F. S. Lawrence, 19 W. 44th St., New York
Annual meeting, Atlantic City, April 21, '23

National tire dealers' association
Sec. 242 W. 56th St., New York
Annual meeting, New York, Nov. 13-15, '23

National trade extension bureau
Sec.-Manager. William J. Wooley, Mercantile Bank Bldg., Evansville, Ind.
Annual conference, Evansville, Ind., Oct. 19-21, '23

National transportation institute
Sec. C. B. Hutchings, 30 N. LaSalle St., Chicago

National varnish manufacturers' association
Sec.-Treas. George B. Heckel, 509 The Bourse, Philadelphia
Annual meeting, Chicago, Oct. 15, '23

National warm air heating and ventilating association
Sec. Allen W. Williams, Columbia Bldg., Columbus, O.
Annual meeting, Cleveland, April 18-19, '23

National wholesale dry goods association
Sec. 505 Arch St., Philadelphia
Annual convention, New York, Jan. 17, '24

National wood chemical association
Sec.-Treas. F. J. Goodfellow, 76 Main St., Bradford, Pa.
Annual convention, Buffalo, Sept 19, '23

Natural gas association of America
Sec.-Treas. William B. Way, 904-5 Oliver Bldg., Pittsburgh, Pa.
Annual meeting, Cleveland, May 19, '24

New England foundrymen's association
Sec. Fred S. Stockwell, Barbour-Stockwell Co., Cambridge, Mass.
Annual meeting, Boston, Jan. 11, '22

New England road builders' association
Sec. Frederick Hoitt, 68 Devonshire St., Boston

New England water works association
Sec. Frank J. Gifford, Supt. Water Works. Dedham, Mass.
Annual meeting, Boston, Jan. '23
Annual convention, Burlington, Vt., Sept. 18-21, '23

North central electric association
Sec. H. E. Young, 15 South Fifth St., Minneapolis, Minn.
Annual convention, Minneapolis, June 20-22, '23

Optical club of America
Sec. 15 John St., New York

Pacific logging congress
Sec.-Treas. George M. Cornwall, Portland, Ore.

Paint manufacturers' association of the United States
Sec.-Treas. George B. Heckel, 509 The Bourse, Philadelphia
Annual convention, Chicago, Oct. 15-16, '23

Pan American chamber of commerce
Sec. 42 Broadway, New York

Pan American highway mission
Congress, Washington, D.C., June '24

Paper trade associations
Reports of the annual meetings and lists of officers for the coming year of the various associations connected with the paper trade are to be found in the April 12 issue of Paper Trade Journal and in the April 18 issue of Paper

Periodical publishers' association of America
Sec. Phillips Wyman, 200 Fifth Ave., New York
Annual meeting, New York, Oct. 26, '22

Permanent conference for the abolition of child labor
Organization meeting, Washington, D.C., June 1, '22

Personnel research federation
Sec. Alfred D. Flinn, 29 W. 39th St., New York
This society will collect research information and coordinate the research activities of about 250 organizations

Plumbers' associations
A list of the various state associations, with convention dates, will be found in the weekly numbers of Domestic Engineering

Portland cement association
Gen. Mgr. Wm. M. Kinney, 111 W. Washington St., Chicago
Spring meeting, St. Louis, May 21-23, '23
Annual meeting, New York, Nov. 19-21, '23

Poster advertising association
Sec. W. W. Bell, 307 S. Greene St., Chicago
Annual convention, Cincinnati, Oct. 8-12, '23

Pressed metal association
Sec. Illuminating Bldg., Cleveland, O.

Public ownership league of America
Sec. Carl D. Thompson, 127 N. Dearborn St., Chicago
Annual convention, Toronto, Sept. 10-12, '23

Public utilities advertising association
Annual meeting, Atlantic City, June 4-7, D '23

Radio club of America
Sec. Renville H. McCann, 15 Warren St., New York

Radio research association
Sec. B. Hoffman, 233 S. Third St., Brooklyn, N.Y.

Railway and locomotive historical society
Sec. R. W. Carlson, Escanaba, Mich.

Railway associations
A complete list of the various divisions and sections of the American railway association, and also of all the other important railway associations, with convention dates and secretaries, is to be found in the first number of each month of the Railway Age

Railway business association
Sec. Frank W. Noxon, 600 Liberty Bldg., Broad and Chestnut Sts., Philadelphia
Annual meeting, New York, Nov. 8, '23

Railway development association of the Southeast
Sec. H. S. McLendon, St. Augustine, Fla.
Annual meeting, Atlanta, Ga., Feb. 22-23, '22

Railway equipment manufacturers' association
Sec. H. A. Varney, c/o Sunbeam Electric Manufacturing Co., Evansville, Ind.
Annual meeting, Chicago, Sept. 11-14, '23

Refractories manufacturers' association
Sec. F. W. Donahoe, 840 Oliver Bldg., Pittsburgh
Annual meeting, White Sulphur Springs, W.Va., Nov. 2-3, '22

Rice leaders of the world association
Pres. Ellwood Rice, 225 Fifth Ave., New York

Rocky Mountain petroleum association
Sec. 206 Customhouse, Denver, Colo.

Rubber association of America
Sec. A. L. Viles, 250 W. 57th St., New York
Annual meeting, New York, Jan. 8-9, '23

Russian engineering society
Sec. A. Pazdzersky, 29 W. 39th St., New York

Safety institute of America
Sec. 141 E. 29th St., New York

Sand-lime brick association
Sec. J. S. Palmer, Sebewaing, Mich.
Annual convention, Grand Rapids, Mich., Feb. 8-9, '23

Science service
Sec. Edwin E. Slosson, 530 W. 123d St., New York
An institution, comprised of the National academy of sciences, the American association for the advancement of science, and the National research council "for increasing the intelligence of the people in science by means of the journalistic press"

Silk association of America
Sec. Ramsay Peugnet, 354 Fourth Ave., New York
Annual dinner, New York, Jan. 12, '24

Smoke prevention association
Sec.-Treas. Frank A. Chambers,, 5449 Woodlawn Ave., Chicago
Annual convention, Minneapolis, Minn., June 19-22, '23

Society for electrical development, inc.
Sec. J. Smieton, jr., 522 Fifth Ave., New York
Conference of electrical leagues, Association Island, New York, Sept. 16-19, '23
Annual meeting, New York, May 6, '24

Society for the prevention of accidents, inc.
Sec. Charles F. Hammond, 231 W. 69th St., New York

Society for the promotion of engineering education
Sec. Dean F. L. Bishop, Univ. of Pittsburgh, Pittsburgh, Pa.
Annual convention, Boulder, Colo., June 25-26, '24

Society of American military engineers
Sec. Capt. H. R. Richards, 423 G St., N. W., Washington, D.C.
Annual meeting, Washington, D.C., Jan. 30, '22

Society of automotive engineers
Sec. Coker F. Clarkson, 29 W. 39th St., New York
Transportation meeting, Cleveland, April 26-28, '23
Semi-annual meeting, Spring Lake, N.J., June 19-23, '23
Production meeting, Cleveland, Oct. '23
Annual meeting, Detroit. Jan. 22-25, '24

Society of chemical industry
Sec. American Section, Allen Rogers, Pratt Institute, Brooklyn, N.Y.
International convention, Glasgow, Scotland, July 4-11, '22

Society of economic geologists
Sec.-Treas. Sydney H. Ball, 42 Broadway, New York
Annual meeting, Washington, D.C., Dec. 27-29, '23
Semi-annual meeting, New York, May '24

Society of gas lighting
Sec. George B. Ramsdell, 128 E. 15th St., New York

Society of industrial engineers
Sec. George C. Dent, 608 S. Dearborn St., Chicago
Annual meeting, Buffalo, April 30-May 2, '24

Society of naval architects and marine engineers
Sec.-Treas. Daniel H. Cox, 29 W. 39th St., New York
Annual meeting, New York, Nov. 8-9, '23

Society of terminal engineers
Sec-Treas. Charles H. Newman, 36 Warren St., New York
Annual meeting, New York. Nov. 13, '23

Southeastern water and light association (formerly Tri-state water and light association)
Sec.-Treas. W. F. Stieglitz, Columbia, S.C.
Annual convention, Atlanta, Ga., April 15-17, '24

Southern Appalachian water power conference
Sec. J. A. Switzer, R. F. D. 2, Knoxville, Tenn.
Annual meeting, Asheville, N.C., June 25-27, '23
Meeting, Chattanooga, Tenn., March 26, '24

Southern gas association
Sec. E. D. Brewer, 75 N. Mayson Ave., Atlanta, Ga.
Annual convention, Augusta, Ga., April 22-24, '24

Southern metal trades association
Sec. William E. Dunn, jr., Atlanta, Ga.
Annual convention, New Orleans, Feb. 26-27, '24

Southern newspaper publishers' association
Sec.-Treas. W. S. Johnson, Chattanooga News, Chattanooga, Tenn.
Annual convention, White Sulphur Springs, W.Va., July 8-11, '23

Southern pine association
Sec. H. C. Berckes, New Orleans, La.

Southern supply and machinery dealers' association
Sec.-Treas. Alvin M. Smith, Smith-Courtney Co., Richmond
Triple convention with the National supply and machinery dealers' association and the American supply and machinery manufacturers' association, Cleveland, O., May 19-21, '24

Southern textile association
Sec. A. B. Carter, Greenville, S.C.
Annual convention, Asheville, N.C., June 22-23, '24

Southwest water works association
Sec.-Treas. R. D. Morgan, Mexia, Texas
Annual meeting, Wichita Falls, Tex., June 18-21, '23

Southwestern electrical and gas association
Now the Southwestern public service association

Southwestern public service association (formerly Southwestern electrical and gas association)
Sec. E. N. Willis, 403 Slaughter Bldg., Dallas, Texas
Annual meeting, New Orleans, La., April 22-25, '24

Southwestern society of engineers
Sec. C. E. Barlebaugh, 721 First National Bank Bldg., El Paso, Tex.

State boards of engineering examiners
Sec.-Treas. P. H. Daggett, Chapel Hill, N.C.
Annual meeting, Chicago, Oct. 2-3, '22

Stoker manufacturers' association
Sec. J. G. Worker, Phoenix Manufacturing Co., Eau Claire, Wis.
Annual meeting, Lake Placid Club, Essex Co., New York, May 29-31, '23

Synthetic organic chemical manufacturers' association of the United States
Pres. Chas. H. Herty, 1 Madison Ave., New York
Annual meeting, New York, March 8, '23

Tap and die institute
Sec. Herbert S. Blake, 116 W. 32d St., New York

Taylor society
Sec. H. S. Person, 29 W. 39th St., New York
Meeting, Syracuse, June 7-9, '23
To promote the science and art of administration and of management

Technical association of the pulp and paper industry
Sec.-Treas. William C. MacNaughton, 18 E. 41st St., New York
Annual convention, New York, April 9-13, '23
Semi-annual meeting, Appleton, Wis., Oct. 25-27, '23

Technical photographic and microscopical society
Sec.-Treas. Alfred B. Hitchins. c/o Ansco Co., Binghamton, N.Y.
Annual meeting, New York, Sept. 14, '22

Technical publicity association
Sec. C. L. Packard, Western Electric Co., Room 1414, 100 E. 42nd St., New York

Telephone pioneers of America
Sec. R. H. Starrett, 195 Broadway, New York
Annual meeting, Cleveland, O., Sept. 29-30, '22

Textile color card association of the United States
Managing director, Miss Margaret H. Rourke, 50 E. 42d St., New York
Annual meeting, New York, Feb. 6, '24

Textile exhibitors' association
Sec. 5 Park Square, Boston

Trailer manufacturing association of America
Sec.-Treas. Henry M. Wood, Trailmobile Co., Cincinnati
1st annual meeting, Detroit, Dec. 17, '23

United engineering society
Sec. Alfred D. Flinn, 29 W. 39th St., New York
Annual meeting, New York, Jan. '24

United States good roads association
Sec. J. A. Rountree, Birmingham, Ala.
Annual convention, Albuquerque, N.M., June '24

United States potters' association
Sec.-Treas. Charles F. Goodwin, East Liverpool, Ohio
Annual meeting, New York, April 10-12, '23

United typothetae and Franklin clubs of America
Sec. E. T. Miller, 608 Dearborn St., Chicago
Annual convention, Washington, D.C., Oct. 22-26, '23

Universal craftsmen council of engineers
Sec. Thomas H. Jones, 33 Linden Ave., Cherrydale, Va.
Annual convention, Rochester, N.Y., Aug. 7-11, '23

Water power league of America, inc.
Sec.-Treas. Frederick L. Long, 114 Nassau St., New York

Western association of electrical inspectors
Sec. William S. Boyd, 175 West Jackson Blvd., Chicago
Annual convention, Omaha, Neb., Jan. 29-31, '24

Western ice manufacturers' association
Sec.-Treas. Chas. K. Wood, Kansas City, Mo.
Annual convention, Kansas City, Mo., Nov. 8-10, '22

Western society of engineers
Sec. E. S. Nethercut, 1736 Monadnock Bldg., Chicago
Annual meeting, Chicago, June 6, '23

Western states reclamation service
Annual conference, Salt Lake City, Nov. 18-20, '23

World power conference and British Empire exhibition
American Sec. O. C. Merrill, Federal Power Commission, Washington, D.C.
Conference, Wembley, London, June 30-July 12, '24

World's salesmanship congress
Director. 1317 Kresge Bldg., Detroit

List of Periodicals Indexed

A S R E J—A. S. R. E. Journal. $3. American Society of Refrigerating Engineers, 154 Nassau St, New York.
Title changed July, 1922, to Refrigerating Engineering.

Administration—Administration. $5; single numbers 50c. Ronald Press Co., 20 Vesey St, New York.
Consolidated with Management Engineering, July, 1923.
See Management & Adm.

Aera. Aera. $2; single numbers 25c. American Electric Railway Association, 8 W 40th St, New York.

Aerial Age—Aerial Age. $3; single numbers 25c. Aerial Age Co., Inc., 5942 Grand Central Terminal, New York.
Discontinued July, 1923.

Aeronautical J—Aëronautical Journal. £1 12s 6d; single numbers 2s 9d. Royal Aëronautical Society, 7, Albemarle St, Piccadilly, London, W. 1.
Title changed, January, 1923, to Royal Aeronautical Society. Journal

Am Arch—The American Architect and the Architectural Review. $6; single numbers 50c. Architectural Building Press, Inc., 243 W 39th St, New York.

Am Cer Soc J—American Ceramic Society. Journal. $8; single numbers. 75c. American Ceramic Society, 211 Church St, Easton, Pa.

Am Chem Soc J—Journal of the American Chemical Society. $7.50. Charles L. Parsons, sec., 1709 G St, N.W., Washington, D.C.

Am Concrete Inst Pro—American Concrete Institute. Proceedings. American Concrete Institute, Friesma Bldg., Detroit, Mich.

Am Dyestuff Rep—American Dyestuff Reporter. $5. Howes Pub. Co., Inc., 4109 Woolworth Bldg., New York.
Indexed from January, 1923.

Am Electrochem Soc Trans—American Electrochemical Society. Transactions. $3. American Electrochemical Society, Bethlehem, Pa.
Preprints are indexed.

Am Gas Assn—American Gas Association. Annual conventions. Proceedings. 5 sections. American Gas Association, Inc., 342 Madison Av, New York.

Am Gas Eng J. See Am Gas J

Am Gas J—American Gas Journal. $3; single numbers 10c. American Gas Light Journal, Inc., Dodge Bldg., 53 Park Pl, New York.
Formerly American Gas Light Journal; American Gas Engineering Journal

Am Ind—American Industries. $1; single numbers 15c. National Manufacturers Co., 50 Church St, New York.

Am Inst Arch J—Journal of the American Institute of Architects. $5; single numbers 50c. The Press of the American Institute of Architects, Inc., Fisk Bldg., 250 W 57th St, New York.

Am Inst Chem Eng Trans—American Institute of Chemical Engineers. Transactions. American Institute of Chemical Engineers, Polytechnic Institute, Brooklyn, N.Y.

Am Inst E E J—Journal of the American Institute of Electrical Engineers. $10; single numbers $1. F. L. Hutchinson, sec., 33 W. 39th St, New York.
Formerly American Institute of Electrical Engineers. Proceedings

Am Inst E E Pro. See Am Inst E E J

Am Inst Min Bul. See Min & Met

Am J Sci—The American Journal of Science. $6; single numbers 50c. American Journal of Science, New Haven, Conn.

Am Mach—American Machinist. $5; single numbers 25c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.

Am Pet Inst Bul—American Petroleum Institute Bulletin. 15 West 44th St, New York.

Am Soc C E Pro—Proceedings of the American Society of Civil Engineers. $8. American Society of Civil Engineers, 33 W 39th St, New York.

Am Soc Heat & V E J—Journal of the American Society of Heating and Ventilating Engineers. $3; single numbers 35c. American Society of Heating and Ventilating Engineers, 29 W 39th St, New York.

Am Soc M E J. See Mech Eng

Am Soc Refrigerating Eng J. See A S R E J

Am Soc T M Pro—American Society for Testing Materials. Proceedings. American Society for Testing Materials, 1315 Spruce St, Philadelphia.

Am Water Works Assn J—Journal of the American Water Works Association. $7; American Water Works Assn., Mount Royal and Guilford Avenues, Baltimore, Md.

Annalist—The Annalist. $5; single numbers 10c. New York Times Co., Times Square, New York.

Arch & Bldg—Architecture and Building. $3; single numbers 30c. William T. Comstock Co., 23 Warren St, New York.

Arch Forum—Architectural Forum. $6; single numbers 60c. Rogers and Manson Co., 383 Madison Av, New York.

Arch Rec—Architectural Record. $3; single numbers 35c. F. W. Dodge Corp., 115-119 W 40th St, New York.

Automobile Eng—The Automobile Engineer. 29s 9d; Canadian subs 27s 7d; single numbers 2s. Dorset House, Tudor St, London, E.C. 4.

Automotive Ind—Automotive Industries. $3; single numbers 35c. Class Journal Co., 239 W 39th St, New York.
Formerly Automobile

Aviation—Aviation. $4; single numbers 10c. Gardner-Moffat Co., Inc., 225 4th Av, New York.

Blast F & Steel Pl—The Blast Furnace and Steel Plant. $2; single numbers 25c. Andresen Co., Inc., Thaw Bldg., 108 Smithfield St, Pittsburgh, Pa.

Bldg Age—Building Age and the Builders' Journal. $2; single numbers 35c. Building Age Publishing Corporation, 239 W 39th St, New York.

Boston Soc C E J—Journal of the Boston Society of Civil Engineers. $4 (ten numbers); single numbers 50c. Boston Society of Civil Engineers, 715 Tremont Temple, Boston.

Brass W—Brass World and Platers' Guide. $1; single numbers 15c. Brass World Pub. Co., 153 Waverly Pl, New York.

Brick & Clay Rec—Brick and Clay Record. $3; single numbers 25c. Industrial Publications, Inc., 407 S Dearborn St, Chicago.

Bus Transportation—Bus Transportation. $2; single numbers 25c. McGraw-Hill Co., Inc., 10th Av, at 36th St, New York.

Can Chem & Met—Canadian Chemistry and Metallurgy. $3; single numbers 40c. Westman Press, Ltd., 57 Queen St, W, Toronto, Canada.

Can Eng—The Canadian Engineer. $3; single numbers 15c. Monetary Times Printing Co. of Canada, Ltd., 62 Church St, Toronto, Ont.

Chem Age—Chemical Age. $2; single numbers 25c. McCready Pub. Co., 381 4th Av, New York.

Chem Age (Lond)—The Chemical Age. 26s; single numbers 6d. Benn Brothers, Ltd., 8, Bouverie St, London, E.C. 4.
Indexed from January, 1923.

Chem & Met Eng—Chemical and Metallurgical Engineering. $4; single numbers 25c. McGraw-Hill Co., Inc., 10th Av, at 36th St, New York.
Formerly Metallurgical and Chemical Engineering

Chem Soc J—Journal of the Chemical Society. £3. Gurney and Jackson, 33, Paternoster Row, London, E.C. 4.

Chimie & Ind—Chimie & Industrie. 110 fr; single numbers 10 fr. Société de Chimie Industrielle, 49, rue des Mathurins, Paris, France.

Coal Age—Coal Age. $3; single numbers 20c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.

Color Tr J—Color Trade Journal and Textile Chemist. $5; single numbers 50c. Color Trade Journal, Inc., 103 Park Av, New York.

Comm & Fin Chr—The Commercial & Financial Chronicle. $10; single numbers 25c. William B. Dana Co., 188 Front St, New York.

Concrete—Concrete. $3; Concrete-Cement Age Pub. Co., 1807 E Grand Blvd., Detroit, Mich.
Formerly published as Concrete-Cement Age.

Deutsche Chem Gesell Ber—Berichte der Deutschen Chemischen Gesellschaft. $7.50. R. Frielaender & Sohn, Karlstrasse 11, Berlin, N.W., Germany.

Dom Eng—Domestic Engineering. $2; single numbers 10c. Domestic Engineering Co., 1900 Prairie Av, Chicago.

Econ Geol—Economic Geology. $4; single numbers 65c. Economic Geology Pub. Co., Prince and Lemon Sts, Lancaster, Pa.

Elec J—The Electric Journal. $2; single numbers 25c. The Electric Journal, 1205 Keenan Bldg., Pittsburgh, Pa.

Elec R—Electrical Review and Industrial Engineer. $2; single numbers 20c. McGraw-Hill Co., Inc., Old Colony Bldg., Chicago.
Formerly Electrical Review and Western Electrician.
Title changed July 1922 to Industrial Engineer.

Elec R (Lond)—Electrical Review. £2 1s 6d; Canadian subs £1 12s 6d; single numbers 6d. 4, Ludgate Hill, London, E.C. 4.

Elec Ry J—Electric Railway Journal. $4; single numbers 20c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.

Elec W—Electrical World. $5; single numbers 25c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.

Electrician—Electrician. £1 10s; single numbers 6d. 8 Bouverie St, London, E. C. 4.
Not indexed for 1923.
Indexing resumed in 1924.

Eng & Contr—Engineering and Contracting. $4; single numbers 20c. Engineering and Contracting Pub. Co., 221 E 20th St, Chicago.
Beginning with October 4 published as four rotating monthly magazines in the order following: Roads and Streets, Water Works, Railways, and Buildings. $1 a year each.

Eng & Ind Management. See Ind Management (Lond)

Eng & Min J—Engineering and Mining Journal-Press. $5; single numbers 25c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.
Engineering and Mining Journal consolidated with Mining and Scientific Press

Eng Educ—Engineering Education. $3 (ten numbers). Dean F. L. Bishop, University of Pittsburgh, Pittsburgh, Pa.

Eng N—Engineering News-Record. $5; single numbers 25c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.
Engineering News consolidated with Engineering Record beginning April 5, 1917.

Eng Soc W Pa—Proceedings of the Engineers' Society of Western Pennsylvania. $5; single numbers 50c. Engineers' Society of Western Pennsylvania, William Penn Hotel, Pittsburgh, Pa.

Engineer—Engineer. Thick paper ed £3 7s 6d; Canadian subs £3 3s; thin paper ed £3 3s; Canadian subs £2 18s 6d; single numbers 1s 3d. Engineer, 33, Norfolk St, Strand, London, W.C. 2

Engineering—Engineering. Thick paper ed £3 7s 6d; Canadian subs £3 3s; thin paper ed £3 3s; Canadian subs £2 18s 6d; single numbers 1s 2½d. Engineering, Ltd., 35 and 36, Bedford St, Strand, London, W.C. 2.

Factory—Factory. $3; single numbers 25c. A. W. Shaw Co., Cass, Huron and Erie Sts, Chicago; 342 Madison Av, New York.

Filing—Filing. $2; single numbers 25c. Filing Incorporated, 320 Broadway, New York.
Discontinued. September and October, 1922, numbers indexed.

Foundry—Foundry. $3; single numbers 25c. Penton Pub. Co., 1213 W 3d St, Cleveland, O.

Gas Age—Gas Age-Record. $3; single numbers 25c. Robbins Pub. Co., Inc., 52 Vanderbilt Av, New York.
Consolidation of Gas Age and the Gas Record.

Gas J (Lond)—Gas Journal. single numbers 1s. Walter King, Ltd., 11 Bolt Court, Fleet st, London, E.C. 4.
Indexed from January, 1923.

Gen Elec R—General Electric Review. $3; single numbers 30c. General Electric Co., Schenectady, N.Y.

Génie Civil—Le Génie Civil. 85 fr; single numbers 2 fr. 6, rue de la Chaussée-d'Antin, Paris (9e), France.

Good Roads—Good Roads. $3. Hibbard-Tree Pub. Co., 53 Park Pl, New York.
New series volume number was dropped with the July 6, 1921 number, and the old series volume number continued.

Heat & Ven—Heating and Ventilating Magazine. $2; single numbers 20c. Heating & Ventilating Magazine Co., 1123 Broadway, New York.

Ill U Eng Exp Sta Bul—Illinois University Engineering Experiment Station. Bulletin. Univ. of Ill., Urbana.

Ill U Eng Exp Sta Circ—Illinois University Engineering Experiment Station. Circular. Univ. of Ill., Urbana.

Illum Eng Soc—Transactions of the Illuminating Engineering Society. $7.50; single numbers $1. Illuminating Engineering Soc., 29 W 39th St, New York.

Illum Engr—Illuminating Engineer. 18s; single numbers 1s 6d. Illuminating Engineering Pub. Co., 32 Victoria St, London, S. W. 1.

Ind & Eng Chem—Industrial and Engineering Chemistry. $7.50; single numbers 75c. Charles L. Parsons, Sec., 1709 G St, N.W., Washington, D.C.
Formerly Journal of Industrial and Engineering Chemistry.

Ind Eng—Industrial Engineer. $2; single numbers 25c McGraw-Hill Co., Inc., Old Colony Bldg., Chicago.
Formerly Electrical Review and Western Electrician; Electrical Review and Industrial Engineer.

Ind Management—Industrial Management. $3; single numbers 35c. Industrial Management, 120 W 32d St, New York.
Formerly Engineering Magazine.

Ind Management (Lond)—Industrial Management. 12s 6d; single numbers 8d. Louis Cassier Co., Ltd., 34, Bedford St, Strand, London, W.C. 2.
Formerly Engineering and Industrial Management.

India Rubber W—India Rubber World. $3; single numbers 35c. India Rubber Pub. Co., 25 W 45th St, New York.

Inland Ptr—Inland Printer. $4; single numbers 40c. Inland Printer Co., 632 Sherman St, Chicago.

Inst E E J—Journal of the Institution of Electrical Engineers. single numbers 10s 6d. E. & F. N. Spon, Ltd., 57 Haymarket, London, S. W. 1.; Spon & Chamberlain, 123 Liberty St, New York.

Inst Pet Tech J—Journal of the Institution of Petroleum Technologists and Record of Transactions, single numbers 10s 6d. Institution of Petroleum Technologists, Aldine House, Bedford St. Strand. London. W.C.2.

Int Labour R—International Labour Review. $5; single numbers 60c. International Labour Office, 7, Route de Pregny, Geneva, Switzerland.

Int Marine Eng. See Marine Eng

Iron Age—Iron Age. $6; single numbers 25c. Iron Age Pub. Co., 239 W 39th St, New York.

Iron & Steel Inst J—Journal of the Iron and Steel Institute. Iron and Steel Institute, 28, Victoria St, London, S. W. 1; E. & F. N. Spon, Ltd., 57, Haymarket, London; Spon & Chamberlain, 123 Liberty St, New York.

Iron Tr R—Iron Trade Review. $6; single numbers 25c. Penton Pub. Co., Cleveland, O.

J Account—Journal of Accountancy. $4; single numbers 35c. Journal of Accountancy, Inc., 135 Cedar St, New York.

J Elec—Journal of Electricity and Western Industry, $2; single numbers 25c. McGraw-Hill Co. of Cal., Rialto Bldg., San Francisco, Cal.

J Fr Inst—Journal of the Franklin Institute. $6; single numbers 60c. Franklin Institute, Philadelphia.

J Ind & Eng Chem—Journal of Industrial and Engineering Chemistry. $7.50; single numbers 75c. Charles L. Parsons, sec., 1709 G St, N.W., Washington, D.C.
Title changed January, 1923, to Industrial and Engineering Chemistry

J Ind Hygiene—The Journal of Industrial Hygiene. $6; single numbers 75c. Harvard Medical School, 240 Longwood Av, Boston, Mass.

J Phys Chem—The Journal of Physical Chemistry. $8. Cornell University, Ithaca, N.Y.

Locomotive—Locomotive. 50c; single numbers gratis; recent bound volumes $1. Hartford Steam Boiler Inspection & Insurance Co., Hartford, Conn.

Mach—Machinery. Engineering edition $3; single numbers 35c. Industrial Press, 140 Lafayette St, New York.

Management & Adm. Management and Administration. $5; single numbers 50c. Ronald Press Co., 20 Vesey St, New York.

Management Eng—Management Engineering. $5; single numbers 50c. Ronald Press Co., 20 Vesey St, New York.
Consolidated with Administration, July 1923. See Management & Adm.

Marine Eng—Marine Engineering and Shipping Age. $3; single numbers 35c. Aldrich Pub. Co., 30 Church St, New York.
Formerly International Marine Engineering

Marine R—Marine Review. $3; single numbers 25c. Penton Pub. Co., 12th St, Cor. Chestnut, Cleveland, O.

Mech Eng—Mechanical Engineering, the Journal of the American Society of Mechanical Engineers. $4; single numbers 50c. American Society of Mechanical Engineers, 29 W 39th St, New York.

Metal Ind—Metal Industry. $1; single numbers 10c. Metal Industry, 99 John St, New York.

Metal Work. See Sanitary & Heat Eng and Sheet Metal Worker

Min & Met—Mining and Metallurgy. subs. $10; single numbers $1; to members, public libraries, and educational institutions, $5; single numbers 50c. F. F. Sharpless, sec., 29 W 39th St, New York.
Formerly Bulletin of the American Institute of Mining and Metallurgical Engineers
Not indexed since December, 1922

Min & Sci P—Mining and Scientific Press. $4; single numbers 15c. Dewey Pub. Co., 420 Market St, San Francisco, Cal.
Sold to McGraw-Hill Co., Inc., and consolidated with Engineering and Mining Journal, April 1.

Mo U Sch Mines & Met Bul—Bulletin of the University of Missouri. School of Mines and Metallurgy, Univ. of Mo., Rolla

Mo U Sch Mines & Met Bul tech ser—Bulletin of the University of Missouri, School of Mines and Metallurgy, Technical Series. Univ. of Mo., Rolla

Monthly Labor R—Monthly Labor Review. $1.50; single numbers 15c. U.S. Bureau of Labor Statistics, Washington, D.C.
Free to labor departments and bureaus and other offices connected with the administration of labor laws.

Munic Eng—Municipal and County Engineering. $2; single numbers 25c. Engineering Pub. Co., 702 Wulsin Bldg, Indianapolis, Ind.

Munic J. See Pub Works

N E L A Bul—National Electric Light Association Bulletin. $3. National Electric Light Assn., 29 W 39th St, New York.

N E Water Works Assn J—Journal of the New England Water Works Association. $4; single numbers $1.25. New England Water Works Association, 715 Tremont Temple, Boston.

Nat Pet N—National Petroleum News. $2.50; single numbers 10c. National Petroleum Pub. Co., 812 Huron Road, Cleveland, O.

Nat Research Council Bul—National Research Council Bulletin. National Research Council, 1701 Massachusetts Av, Washington, D.C.

Nat Safety N—National Safety News. $4; single numbers 40c. without bulletins; with bulletins $6; single numbers 60c. National Safety Council, 168 N Michigan Av, Chicago.
Indexed from January, 1923.

Nation's Business—The Nation's Business. $3; single numbers 25c. Chamber of Commerce of the United States, Mills Bldg., Washington, D.C.

Office Management—Office Management. $2; single numbers 25c. Filing Incorporated, 320 Broadway, New York.
Discontinued. September and October, 1922, numbers indexed.

Oil Paint & Drug Rep—Oil, Paint and Drug Reporter. $5; single numbers 15c. Oil, Paint and Drug Reporter, 100 William St, New York.

Paper—Paper. $5; single numbers 25c. Hughes Pub. Co., 1478 Broadway, New York.

Paper Tr J—Paper Trade Journal. $4; single numbers 10c. Lockwood Trade Journal Co., Inc., 10 E 39th St, New York.

Philos Mag—Philosophical Magazine, and Journal of Science. single numbers 4s. 6d. Taylor and Francis, Red Lion Court, Fleet St, London.

Phys R—The Physical Review. Second Series. $7; single numbers 75c. The Physical Review, Corning, N.Y.

Plumber. See Sanitary & Heat Eng

Pop Mech—Popular Mechanics Magazine. $3; single numbers 25c. Popular Mechanics Co., 200 E Ontario St, Chicago.
Transferred to Readers' Guide, 1924.

Power—Power. $3; single numbers 15c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.

Power Pl Eng—Power Plant Engineering. $2; single numbers 15c. Technical Pub. Co., 537 S Dearborn St, Chicago.

Prof Eng—Professional Engineer. $1.50; single numbers 15c. American Association of Engineers, 63 E Adams St, Chicago.
Indexed from January, 1923.

Ptg Art—The Printing Art. $4; single numbers 40c. The University Press, Cambridge, Mass.

Ptr Ink—Printers' Ink. $3; single numbers 10c Printers' Ink Pub. Co., 185 Madison Av, New York

Ptr Ink M—Printers' Ink Monthly. $2; singl numbers 25c. Romer Pub. Co., Inc., 185 Madison Av, New York.

Pub Roads—Public Roads. $1; single numbers 10c. U.S. Department of Agriculture, Bureau of Public Roads, Washington, D.C.
Discontinued with the December, 1921 number.

Pub Works—Public Works. $3; single numbers 25c. Public Works Journal Corp., 243 W 39th St, New York.
Formerly Municipal Journal and Public Works

Ref Shelf—The Reference Shelf. $4.50. The H. W. Wilson Co., 958 University Av, New York.

Refrig Eng—Refrigerating Engineering. $5; single numbers 50c. American Society of Refrigerating Engineers, 35 Warren St, New York.
Formerly A. S. R. E. J.

Refrig W—Refrigerating World. $2; single numbers 20c. Ice Trade Journal Co., 25 West Broadway, New York.

Roy Aeronautical Soc J—Royal Aëronautical Society Journal. £1 12s 6d; single numbers 2s 9d. Royal Aëronautical Society, 7, Albemarle st, Piccadilly, London, W. 1.
Formerly Aëronautical Journal

Ry Age—Railway Age. $6; single numbers 25c. Simmons-Boardman Pub. Co., 30 Church St, New York.
Formerly Railway Age Gazette

Ry Mech Eng—Railway Mechanical Engineer including the American Engineer. $3; single numbers 35c. Simmons-Boardman Pub. Co., 30 Church St, New York.
Formerly Railway Age Gazette. Mechanical edition.

Ry R—Railway Review. $4; single numbers 25c. Railway Review, 537 S Dearborn St, Chicago; 30 Church St, New York.
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Safety Eng—Safety Engineering. $3; single numbers 25c. Safety Magazine Publishing Corp., 119 Nassau St, New York.

Sanitary & Heat Eng—Sanitary & Heating Engineering. $2; single numbers 10c. Edwin A. Scott Pub. Co., Inc., 15 E 40th St., New York.
Formerly published as Plumber and Steam Fitter

Sci Am—Scientific American. $4; single numbers 35c. Scientific American Pub. Co., 233 Broadway, New York.
Consolidation of Scientific American Weekly and Scientific American Monthly, beginning November, 1921.

Sheet Metal Worker—Sheet Metal Worker. $3; single numbers 15c. Edwin A. Scott Pub. Co., Inc., 15 E 40th St, New York.
A Consolidation of Metal Worker, Plumber and Steam Fitter and Sheet Metal.

Sibley J—Sibley Journal of Engineering. $2.50; single numbers 30c. Sibley College, Cornell Univ., Ithaca, N.Y.

Soc Auto Eng J—Society of Automotive Engineers. Journal. $10; single numbers $1. Society of Automotive Engineers, Inc., 29 W 39th St, New York.

Soc Chem Ind J—Society of Chemical Industry. Journal. single numbers 1s 9d. Society of Chemical Industry, Central House, 46 & 47, Finsbury Sq, London, E.C. 2.

Soc Dyers & Col J—Society of Dyers and Colourists. Journal. 60s; single numbers 5s. Society of Dyers and Colourists, 30 Pearl Assurance Bldgs, Market St, Bradford, England.
Indexed from January, 1923.

Soc Ing Civils Bul—Mémoires et Compte Rendu des Travaux de la Société des Ingénieurs Civils de France. Bulletin. Hotel de La Société, 19, rue Blanche, 19 (9e), Paris, France.

Special Lib—Special Libraries. $4; single numbers 50c. H. W. Wilson Co., 958-972 University Av, New York.

Stahl & Eisen—Stahl und Eisen, Düsseldorf, Germany.

Stevens Ind—Stevens Indicator. $2; single numbers 35c. Stevens Institute of Technology, Hoboken, N.J.

System—System. $4; single numbers 35c. A. W. Shaw Co., Cass, Huron and Erie Sts, Chicago.

Tech Assn Pa—Technical Association Papers. 3d ser. $2; 4th & 5th ser. $3. Technical Association of the Pulp and Paper Industry, 18 E 41st St, New York.

Textile Col—Textile Colorist. $5. Textile Colorist, 53 Park Pl, New York.
Indexed from January, 1923.

Textile Inst J—Textile Institute. Journal. 2 Guineas. Textile Institute, 16 St Mary's Parsonage Manchester, England.
Indexed from January, 1923.

Textile World—Textile World. $4. Bragdon, Lord & Nagle Co., 334 4th Av, New York.
Formerly published as Textile World Record, monthly at $2; Textile World Journal.

U S Agric Bul—United States. Dept. of Agriculture. Bulletin. Distributed free of charge. U.S. Dept. of Agriculture, Division of Publications, Washington, D.C.
Contributions from the Bureau of Chemistry, Forest Service and Office of Public Roads are indexed, also selected publications of other bureaus.

U S Bur For & Dom Com—United States. Bu-
* reau of Foreign and Domestic Commerce. Special agents series. U.S. Bureau of Foreign and Domestic Commerce, Washington, D.C

U S Bur For & Dom Com misc ser—United
* States. Bureau of Foreign and Domestic Commerce. Miscellaneous series. U.S. Bureau of Foreign and Domestic Commerce, Washington, D.C.

U S Bur For & Dom Com Trade Information
* **Bul**—U.S. Bureau of Foreign and Domestic Commerce, Washington, D.C.

U S Bur Labor Statistics Bul—United States. Bureau of Labor Statistics. Bulletin. Distributed free of charge. U.S. Bureau of Labor Statistics, Washington, D.C.

U S Bur Mines Bul—United States. Bureau of
† Mines. Bulletin. U.S. Bureau of Mines, Washington, D.C.

U S Bur Mines Circ—United States. Bureau of
† Mines. Miners' circular. U.S. Bureau of Mines, Washington, D.C.

U S Bur Mines Tech Pa—United States. Bureau
† of Mines. Technical paper. U.S. Bureau of Mines, Washington, D.C.

U S Bur Stand Circ—United States. Bureau of
‡ Standards. Circular. U.S. Bureau of Standards, Washington, D.C.

U S Bur Stand Sci Pa—United States. Bureau of Standards. Scientific papers. U.S. Bureau of Standards, Washington, D.C.
Per volume paper $1.25; cloth $1.50; foreign subscription, paper $2; cloth $2.10. Single numbers vary in price.

U S Bur Stand Tech Pa—United States.
‡ Bureau of Standards. Technologic papers. U.S. Bureau of Standards, Washington, D.C.

U S Geol S Bul—United States Geological Survey. Bulletin. Distributed free of charge. U.S. Geological Survey, Washington, D.C.

U S Nat Advisory Com for Aeronautics—United States National Advisory Committee for Aeronautics, Washington, D.C.

U S Sp Cons Rep—United States. Special consular reports. U.S. Bureau of Foreign and Domestic Commerce, Washington, D.C.

U S Women's Bur Bul—United States Women's Bureau. Bulletin. U.S. Women's Bureau, Washington, D.C.

W Soc E J—Journal of the Western Society of Engineers. $3; single numbers 50c. Western Society of Engineers, 53 W Jackson Blvd. Chicago.

Wireless Age—The Wireless Age. $2.50; single numbers 25c. Wireless Press, Inc., 326 Broadway, New York.

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Abbreviations of Publishers' Names Used in Book Titles

Am. Acad. of Pol. and Soc. Sci. American Academy of Political and Social Science, Station B, Philadelphia

Appleton. Daniel Appleton & Co., 29-35 W. 32d St., N.Y.; 533 S. Wabash Av., Chicago

Baird. H: C. Baird & Co., 2 W. 45th St., N.Y.

Blakiston. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia

Bobbs. Bobbs-Merrill Co., 18 University Square, Indianapolis; 185 Madison Av., N.Y.

Brentano's, 5th Av. & 27th St., New York.

Century Co., 353 4th Av., N.Y.

Chemical Catalog Co., Inc., 19 E. 24th St., N.Y.

Chemical Pub. Co. Chemical Pub. Co., 300 N. 3d St., Easton, Pa.

Crowell. T. Y. Crowell Company, 426-428 W. Broadway, N.Y.

Dodd. Dodd, Mead & Co., 4th Av., & 30th St., N.Y.

Doran. George H. Doran Co., 244 Madison Av., N.Y.

Doubleday. Doubleday, Page & Co., Garden City, N.Y.

Drake. Frederick J. Drake & Co., 1006 S. Michigan Av., Chicago

Dutton. E. P. Dutton & Co., 681 5th Av., N.Y.

Ginn. Ginn & Co., (Educational text-bks.) 15 Ashburton Place, Boston; 2301-2311 Prairie Av., Chicago; 70 5th Av., N.Y.

Gregg. Gregg Publishing Company, 285 5th Av., N.Y.; 623 S. Wabash Av., Chicago

Harcourt. Harcourt, Brace & Co., 383 Madison Av., N.Y.

Harper. Harper & Brothers, 49 E. 33d St., N.Y.

Heath. D. C. Heath & Co., 50 Beacon St, Boston; 239 W. 39th St., N.Y.; 1815 Prairie Av., Chicago

Henley. Norman W. Henley Pub. Co., Putnam Bldg., 2 W. 45th St., N.Y.

Holt. Henry Holt & Co., 19 W. 44th St., N.Y.; 2451 Prairie Av., Chicago

Houghton. Houghton, Mifflin Co., 2 Park St., Boston; 16 E. 40th St., N.Y.; 2451-2459 Prairie Av., Chicago; 612 Howard St., San Francisco

Huebsch. B. W. Huebsch, 116 W. 13th St., N.Y.

Knopf. Alfred A. Knopf, 730 5th Av., N.Y.

Lippincott. J. B. Lippincott Co., East Washington Sq., Philadelphia

Longmans. Longmans, Green & Co., 55 5th Av., Cor. 12th St., N.Y.

McGraw-Hill. McGraw-Hill Bk. Co., Inc., 370 7th Av., N.Y.

McKay. David McKay, 604-608 S. Washington Square, Philadelphia

Macmillan. The Macmillan Co., 66 5th Av., N.Y.

Manual Arts Press, 237 N. Monroe St., Peoria, Ill.

Oxford. Oxford University Press (Clarendon Press) (American branch), 35 W. 32d St., N.Y.

Penton Pub. Co., 1213 W. 3d St., Cleveland, O.

Pitman. Sir Isaac Pitman & Sons, 2-6 W. 45th St., N.Y.

Prentice-Hall, Inc., 70 5th Av., N.Y.

Putnam. G. P. Putnam's Sons, Putnam Bldg., 2-6 W. 45th St., N.Y.

Revell. Fleming H. Revell & Co., 158 5th Av., N.Y.; 17 N. Wabash Av., Chicago

Ronald Press. Ronald Press Co., Evening Post Bldg., 20 Vesey St., N.Y.

Routledge. Routledge, G. & Sons, Ltd., Broadway House, 68-74 Carter Lane, Ludgate Hill, E.C. 4

Scribner. Charles Scribner's Sons, 597 5th Av., N.Y.; 320 E. 21st St., Chicago

Shaw. A. W. Shaw Co., Cass, Huron & Erie Sts., Chicago; 342 Madison Av., N.Y.

Spon. E. & F. N. Spon, Ltd., 57 Haymarket, London, S. W. 1; Spon & Chamberlain, 122 Liberty St., N.Y.

Stokes. F. A. Stokes Co., 443-449 4th Av., N.Y.

Supt. of Doc. Superintendent of Documents, Washington, D.C.

U. P. C. Book Co., Inc., 243 W. 39th St, N.Y.

Univ. of Chicago Press, 5750 Ellis Av., Chicago

Van Nostrand. D. Van Nostrand Co., 8 Warren St., N.Y.

Wiley. John Wiley & Sons, Inc., 432 4th Av., N.Y.

Workers Educ. Bur. Workers Educational Bureau of America, 476 W. 24th St., N.Y.

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January, 1922—December, 1923

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Advertising that jolts the reader into action. C. B. Larrabee. il Ptr Ink M 5:20-2 N '22
Advertising the product with the hard-to-say name. G: H. Wicker. Ptr Ink 118:33-4+ F 16 '22
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Application of the actline idea to every-day business. B: H. Jefferson. Ptr Ink 117:3-4+ N 17 '21
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Blood-and-thunder in industrial advertising. A. L. Townsend. Ptr Ink 124:134+ Ag 9 '23
Boomerang copy. P. K. Marsh. Ptg Art 42: 145-7 O '23
Borrowed glamor in copy. R: Surrey. Ptr Ink 124:97-8+ S 13 '23
Business-paper advertising based on the travelogue plan; Nicholson file co. covers industrial centres. Ptr Ink 117:49-50+ N 24 '21
Butterick good will advertisements. 125p Butterick pub. co., New York '22
Can your copy risk a turn-down? H. A. Beers, jr. Ptr Ink M 6:24 F '23
Checking up on the big idea. Ptr Ink 117: 77-80+ D 29 '21
Codified copy; satire. P. K. Marsh. Ptr Ink 117:145-6+ N 17 '21
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Copy that moves the feelings. R: Surrey. Ptr Ink M 6:52+ My '23
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Dealers—and what they aren't. P. K. Marsh. Ptr Ink 119:61-2+ My 11 '22
Devices that get repetition within the advertisement. Ptr Ink 120:165-6 S 21 '22
Dialogue on the advertising stage. P. K. Marsh. Ptr Ink 120:73-4+ Jl 20 '22
Dig deep for good copy. S. Hunter. Ptr Ink M 4:66+ Ja '22
Dignified copy sells standardized homes. Ptr Ink 118:133-4 Ja 26 '22
Does the housekeeper read the copy on your package? E. C. Norden. Ptr Ink M 4:90+ D '21
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Eleven ways to dig out the selling appeal. R. Dickinson. Ptr Ink 124:3-4+ Ag 16 '23
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Finding a copy transmitter in a mythical organization; advertising ash gates. W. B. Edwards. Ptr Ink 123:77-8+ Ap 12 '23
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Get the dealers' picture of your product. Ptr Ink 117:41-2+ N 24 '21
Giving an old product a new advertising atmosphere. A. L. Townsend. Ptr Ink 121: 125-6+ N 2 '22
Good books to train the advertising marksman. D: Dulaney. Ptr Ink 124:41-2+ Ag 30 '23
Has advertising reached the dignity of finance? R. M. Rhodes. Ptr Ink 120:54+ Jl 27 '22
Headlines that overcome the ready negative. J: T. Bartlett. Ptr Ink M 5:63-4 S '22
How Ruud focuses advertising against objections. H: Burwen. Ptr Ink 124:33-4+ Jl 26 '23
How to make advertising sell photographs. Ptr Ink 120:130+ Ag 31 '22
Ideas that are making advertising campaigns. R. Dickinson. Ptr Ink M 6:17-18+ Ja '23
In emphasizing the obvious it is not necessary to be blatant. Ptr Ink 123:133-4+ Je 21 '23
Incipient bluepencilitis. M. K. Powers. Ptr Ink M 5:31-2+ N '22
Infringement suits as advertising material. Ptr Ink 122:132+ F 1 '23
Inquiries or orders? Ptr Ink 119:170+ Je 1 '22
Is long copy coming back? P. K. Marsh. Ptr Ink 118:33-4+ Mr 2 '22
Is the best industrial advertising the most informative? M. W. Sohn. Ptr Ink 124:61-2+ Jl 19 '23
Is the superlative passing? J. Henle. Ptr Ink 121:105-6 N 9 '22
Is your advertising contagious? R. R. Updegraff. Ptr Ink M 5:17-18+ Je '22
Keeping ahead of competitors in your advertising argument. W. H. Heath. Ptr Ink 122: 146+ Mr 29 '23
The last dozen words are the hardest. P. Sartorus. Ptr Ink 120:33-4+ O 12 '22
Learning where to place the advertising pressure; the Ilg electric ventilating company. Ptr Ink 122:41-2+ Ja 4 '23
Less noise and more eloquence needed in copy. G. R. Arnold. Ptr Ink 122:137-8+ Ja 11 '23
Let the buyer read between the lines. E. M. Wickes. Ptr Ink M 4:53-4 Ap '22
Literary technique that advertising must master. E. N. Simons. Ptr Ink 122:73-4+ F 15 '23
Long and short of the copy length question. I. Fleming. Ptr Ink 120:8+ Jl 13 '22
Make your advertising a member of your prospects' families. F. H. Williams. Ptg Art 39:42-6 Mr '22
Making facts friendly in business paper advertising. R. Dickinson. Ptr Ink 118:85-6+ Mr 16 '22

Advertisements—Copy—*Continued*
Making the advertisement key with spirit of medium. Ptr Ink 119:17-18 My 4 '22
Making the big idea graphic. Ptr Ink 118: 120+ Ja 12 '22
Making the consumer a member of the advertising staff. A. L. Townsend. Ptr Ink 117:129-31 N 24 '21
Mechanics of publicity. Am Gas J 117:601-3 N 25 '22
Meeting the handicap of unfavorable legislation with advertising; campaign of Colt's fire arms company. R. Cole. Ptr Ink 120:95-6+ Jl 6 '22
Mr and Mrs Typical. P. K. Marsh. Ptr Ink 121:3-4+ O 19 '22
More news and service in national advertising will sell more goods. F. H. Williams. Ptg Art 41:559-62 Ag '23
Neighborhood calls furnish copy ideas. E. R. O'Bern. Ptr Ink 117:129+ N 10 '21
News method for advertising. L. Markel. Ptr Ink 119:17-19 Ap 13 '22
Newspaper copy that gets people uptown. Ptr Ink 122:53-4 Mr 29 '23
Newspaper display that stands out. Ptr Ink 118:49-50+ Mr 9 '22
Obvious versus the trite. R: Surrey. Ptr Ink 124:88+ Jl 26 '23
Old man specific and specifications. P. K. Marsh. Ptr Ink 118:53-4+ Mr 16 '22
Overlooked sources of copy ideas. P. Sartorus. Ptr Ink M 5:32 Jl '22
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Racial traits of foreign-language consumers make good copy; newspaper advertising of White rose tea. R. Cole. Ptr Ink 121:8+ N 16 '22
Realism in advertising to women. J. Henle. il Ptr Ink M 5:33-4 Jl '22
Reason-why copy and the dear old general public. A. H. Fairbanks. Ptr Ink 121:81-2+ N 9 '22
Receiver vetoes a change in style of copy. R. W. Johnson. Ptr Ink 120:17-19 Jl 20 '22
Receiver's views on be-driveled copy. R. W. Johnson. Ptr Ink 119:41-2+ Ap 20 '22
Relationship between advertising and merchandising. T. J. Casey. Elec R 79:939-42 D 24 '21
Retailer's knowledge of his customers' buying habits. R. Dickinson. Ptr Ink 119:111-12+ Ap 6 '22
Salesmen who help the advertising department. L. Peake. Ptr Ink M 4:37-8 Ap '22
Say it with dignity. W: E. Hyde. Ptr Ink 121: 8+ D 28 '22
Selecting the selling appeal. R: B. Franken. Ptr Ink M 7:26-8+ S; 46+ O '23
Selling a new product in competitive field with terse copy; William Underwood & co. enter market with own brand of codfish cakes. Ptr Ink 122:41-2 F 15 '23
Selling by the printed word. R. Ruxton. See monthly numbers of Printing art
Should advertising be tagged? R: Surrey. Ptr Ink 123:101-2+ Je 21 '23
Should advertising copy be signed by the writers? Ptr Ink 122:101-2 Ja 4 '23
Should copy tell what the advertiser thinks of his product? T: Russell. Ptr Ink 124: 108+ Ag 9 '23
Should you select one feature of your product for advertising emphasis? D. Gridley. Ptr Ink M 7:27-8 Ag '23
Singling out the prospect in business paper publicity. Ptr Ink 117:41-2 D 1 '21
Some homely ideas that move goods. W. L. Larned. Ptr Ink 121:161-2+ O 26 '22
Some ways of overcoming consumer objections. W. L. Larned. Ptr Ink 119:41-2+ Ap 13 '22
Tell us something! Hang the length! R. H. Isbell. Ptr Ink 119:73-4+ My 4 '22
Thick-shelled words. P. K. Marsh. Ptr Ink 121:44+ N 23 '22
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Tight reins for wild advertising. J. R. Hammond. Inland Ptr 69:507-8 Jl '22
To prevent your advertisements from getting stale. P. Sartorus. Ptr Ink 118:3-4+ Ja 26 '22
Trade advertisement as a dealer selling chart. W. B. Edwards. Ptr Ink 124:100-1+ Jl 5 '23
Upsetting a fixed buying habit with profit; Fairfacts bathroom fixtures. J. Henle. Ptr Ink 123:37-8+ Je 21 '23
Us morons as seen through an advertiser's eyes. S. Norvell. Ptr Ink 124:53-4+ S 27 '23
Using the severest test of the product as a copy theme. A. L. Townsend. Ptr Ink 119: 173-4+ My 18 '22
What a close-up of the consumer taught one national advertiser. R. Cole. Ptr Ink 117:3-4+ D 29 '21
What advertising needs today is copy! G. L. Sumner. Ptr Ink 119:93-4 Ap 6 '22
What editors know that might help you. Ptr Ink 117:49-50 D 15 '21
What should copy writers read? R: Surrey. Ptr Ink 122:141-2+ Mr 15 '23
When lovely woman buys. J. H. Collins. Ptr Ink M 4:46+ D '21
When McConnachie helps. R. Dickinson. Ptr Ink M 5:24-6 O '22
When the copy writer turns mathematics into word pictures. W. H. Heath. Ptr Ink 123:73-4+ Je 14 '23
When the roll is called up yonder. R. E. Mackenzie. Ptg Art 41:371-3 Je '23
When there isn't a single thing left to say. T: Russell. Ptr Ink 124:125-6 Jl 19 '23
Where to look for new talking points for your merchandise. R. Cole. Ptr Ink 123:3-4+ Ap 12 '23
Why Esmond varies copy with mediums. il Ptr Ink M 7:25 Jl '23
Why pass up a good thing? O. Stendall. Ptg Art 40:156-7 O '22
Writing direct advertising. R. E. Ramsay. Inland Ptr 69:521-4 Jl '22

See also Advertisements—Testing; Advertisements, Humorous; Advertisements, Pictorial; Trade marks—Advertising

Coupons

Making the coupon more than a corner decoration. W. H. Heath. Ptr Ink 122:9-10+ Mr 1 '23
More mathematics, less theory necessary in coupon discussions. E. T. Gundlach. Ptr Ink 122:25 Mr 22 '23
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To increase the pulling power of advertisements; use of coupons. E. N. Simons. Ptr Ink 117:109-10+ D 15 '21
When using a coupon is good advertising. B: Berfield. Ptr Ink M 6:33-4+ My '23

See also Advertising—Premiums

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American optical company achieves unity in national advertising and dealer tie-ups. D. Kirkland. Ptr Ink 123:25-7 My 24 '23
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Dealer broadside wants a helping hand. A. L. Townsend. Ptr Ink 121:77-8+ D 28 '22
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Helping retailers before they begin to buy your goods. Ptr Ink M 5:76+ N '22
How coca-cola teaches distributors best use of dealer helps. W. B. Edwards. Ptr Ink M 7:50+ Ag '23

Advertisements—Dealer helps—*Continued*
How 400 advertisers are preventing waste in dealer helps. J: A. Murphy. Ptr Ink 122: 3-4+ Ja 11; 33-4+ Ja 18 '23
How 4,000 dealers were sold a dealer help campaign; Acme white lead and color works. A. J. Reiss. Ptr Ink M 6:63+ My '23
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How Kyanize helps its dealers sell. H: Burwen. Ptr Ink 121:45-6+ N 16 '22
How the A. J. Reach co. applies salesmanship to advertising service. W: A. McGarry. Ptr Ink 123:17-20 Ap 19 '23
How Westcott is offering dealers added selling protection. B. F. Berfield. Ptr Ink 124: 93-4+ S 6 '23
Letters that give special help to the dealer in his own town. R. Crothers. Ptr Ink 124: 145-6+ Jl 12 '23
Sells a part of the product first; then the product itself. C. M. Harrison. Ptr Ink 120: 85-6+ Jl 27 '22
Yes, indeed, dealers will pay for helps. bibliog Ptr Ink 122:41-2 F 1 '23
See also Advertising—Dealer cooperation

Design
Unexpected always happens in some advertising problems; pitfalls, mechanical and otherwise. W. L. Larned. Ptr Ink 119:85-6 My 25 '22

Exhibits
Advertising exhibits in a public library. E. Cleland. Inland Ptr 70:702-4 F '23

Fashion appeal
Advantages of the style appeal in advertising. bibliog Ptr Ink 122:10+ Ja 25 '23
Advertise with fashion! A. Tinsman. Ptr Ink 121:17-18 N 23 '22
Advertising brings back a lost style; lacing hooks. D. Kirkland. il Ptr Ink M 7:55-6 Ag '23
Advertising ideas that get a rise out of me. Ptr Ink 118:95-6+ F 2 '22
Advertising merchandise that has the fashion appeal. B: Berfield. il Ptr Ink M 4:38-9 D '21
Importance of style emphasis in marketing fabrics. R. W. Welch. Ptr Ink 120:73-4+ Ag 17 '22
Lifting the lowly galosh to advertising prominence. Ptr Ink 121:19-20 D 14 '22
Luxury product gains a place on public's priority list; Whiting & Davis company's mesh bags. H: Burwen. Ptr Ink 124:73-4+ S 6 '23
Maker of washable belt for men strives to multiply sales. Ptr Ink 120:81+ Jl 20 '22
Making pipe smoking respectable. J. Henle. Ptr Ink M 5:78+ O '22

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Added lure may be given words by hand-lettered cleverness. W. L. Larned. Ptr Ink 123:61-2+ My 24 '23
Bait your advertising hook with tempting headlines. P. K. Marsh. Ptr Ink M 6:88 F '23
Capturing the elusive caption. A. M. Waples. Ptr Ink 117:42+ D 29 '21
Dramatized headlines lend added value to industrial copy. W. L. Larned. Ptr Ink 123: 105-8 Je 7 '23
Giving added emphasis to the headline. A. L. Townsend. Ptr Ink 121:49-50+ O 5 '22
Headlines that invite reader interest. C. Harvey. Ptr Ink 117:166+ D 15 '21
Headlines that overcome the ready negative. J: T. Bartlett. Ptr Ink M 5:63-4 S '22
Phrases that feed the imagination. W. H. Heath. Ptr Ink 122:155-6+ F 1 '23
Putting the headline through odd paces. Ptr Ink 119:69-70+ My 11 '22
Ways of building a headline. J. H. Collins. Ptr Ink 118:110+ Mr 30 '22
When the headline suggests the picture. W. L. Larned. Ptr Ink 118:81-2+ Ja 19 '22
Words that sparkle, phrases that radiate a new cleverness. W. H. Heath. Ptr Ink 118: 124+ Mr 9 '22

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Finding a new market for scales in homes and schools. Ptr Ink 117:10+ D 1 '21
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Part national advertising plays in maintaining public health. R. E. Spline. Ptr Ink 123:33-4+ Ap 12 '23
Selling a style garment direct to the consumer by a health appeal; Spencer corset co. R. Cole. Ptr Ink 122:57-8+ F 1 '23

Historical interest
Making an advertising ally out of history. bibliog Ptr Ink 123:142+ Ap 5 '23
Teaching history through advertising. Ptr Ink 119:69-70+ Je 29 '22
Tiberius Caesar, his table and 1922 advertising. C. M. Harrison. Ptr Ink 118:25-6 Ja 5 '22
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When Dame History fills the inkwell. P. K. Marsh. Ptr Ink 119:57-8+ Ap 6 '22

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Advertising that puts workers on the honor roll. A. L Townsend. Ptr Ink 124:112+ S 20 '23
Getting a successor for "novelty" appeal copy; human interest stories. il Ptr Ink 122:89-90+ Mr 22 '23
Human-interest catalogue and why it sells; Johnson incubators. G. A. Nichols. Ptr Ink M 7:63-4+ O '23
Putting a personality behind the advertising. W. L. Larned. Ptr Ink 123:57-8+ Ap 12 '23
Putting H. I. to work. E. C. Reeves. Ptr Ink 121:65-6+ O 5 '22
Selling human sentiment proves more successful than selling the product. Ptr Ink 120:106+ Jl 13 '22

Illustrations
See Advertisements, Pictorial

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Advertises competitors' names to oppose foreign competition; Dunlop tire advertising in England. T: Russell. Ptr Ink 124:8 S 13 '23
Advertising puts whole town behind one industry. R. Dickinson. Ptr Ink 120:109-10+ Ag 24 '22
Civic pride to increase sales of advertised lines. Ptr Ink 117:101-2 N 24 '21
Giving the message local significance. Ptr Ink 121:57-8+ D 7 '22
Imported vs. domestic goods. Textile World 61:3369+ Je 3 '22
National advertiser finds an undiscovered local market. Ptr Ink 119:111-12 Ap 27 '22
Prison markets branded goods with advertising's aid. J. M. Mosely. Ptr Ink 124:103-4 Jl 12 '23
Railway leads shop-at-home movement. Elec Ry J 59:747-8 My 6 '22
Short-range selling scores hit for tire manufacturers. Ptr Ink 125:149-50 O 18 '23
Standard oil company helps lagging imaginations. Ptr Ink 124:95-6 Jl 5 '23
Trading at home. H. E. Miles. Inland Ptr 69:510-12 Jl '22

Measurement
See Milline

Models
Picturizing the blueprint in selling the engineering proposition. H: Burwen. Ptr Ink M 7:74+ O '23

Name plates
Best position for the name-plate. W. L. Larned. Ptr Ink 120:73-4+ S 21 '22
Getting acrobatic display for the name-plate. W. L. Larned. Ptr Ink 122:57-8+ F 8 '23
Perfecting a close tie-up of name-plate and pictured product. W. L. Larned. Ptr Ink 124:57-8+ S 13 '23

Advertisements—Name plates—*Continued*
What type style is best for your trade name? E. M. Hunt. Ptr Ink M 5:60+ D '22

Negative appeal

Scare copy by inference; Pyrene manufacturing company uses Belasco effects. Ptr Ink 123:33-4 My 10 '23
Stinger can be removed from negative illustrations. W. L. Larned. il Ptr Ink 124: 101-4 Ag 2 '23

News interest

Advertising and football. R. Dickinson. Ptr Ink 121:25-6 N 9 '22
Increasing importance of news-flavored copy. A. E. Haase. Ptr Ink M 7:29-30+ S '23
The Leviathan as a new copy angle. Ptr Ink 124:141-2 Jl 12 '23
Mystery man cements sales by predicting fight outcomes. J. M. Mosely. Ptr Ink 120: 141-2 S 21 '22
What can King Tut-ankh-Amen teach American manufacturers? B: Berfield. Ptr Ink 122: 57-8+ Mr 8 '23

Novelty appeal

Adaptation, then advertising; ready-made bow ties. H: Burwen. Ptr Ink 123:65-6+ Ap 5 '23
Anti-typical advertising. R. H. Isbell. Ptr Ink 121:109-12 N 30 '22
Copy self-starters that make the reader curious to know what follows. A. L. Townsend. Ptr Ink 118:127+ Ja 5 '22
Getting into advertising via the route of the novelty product; Camco radio boot. Ptr Ink 122:25-6 Ja 18 '23
Keeping buyers interested by keeping them surprised. P. S. Wells. Ptr Ink M 5:39-40 N '22
Odd advertising copy that brought Christmas business. M. Hastings, jr. Ptr Ink 121:33-4+ D 28 '22
Place of the stunt in advertising. A. L. Townsend. Ptr Ink 118:78+ F 23 '22
Placing a line above competition; the Ansonia clock company. J. True. Ptr Ink 122:61-2+ Mr 29 '23
Simplified spelling as an inquiry puller. D. M. Hubbard. Ptr Ink 118:113-14+ F 9 '22

Price quoting

Art galleries use price advertising. Ptr Ink 117:130+ D 22 '21
Is it wise to advertise only a partial price; the American radio & research corporation's complete-set price listing. D. Kirkland. Ptr Ink 124:133-4 Jl 5 '23
Price tag in advertising. W: S. Dutton. Administration 3:699-701 Je '22
Three-cent reduction price that doubled orders. G: H. Wicker. Ptr Ink M 5:46+ Ag '22
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When the buyers set you right. R. Dickinson. Ptr Ink M 4:33-4+ My '22

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Change in copy results in a fifty per cent increase in sales. R. Cole. Ptr Ink 122:65-6+ Mr 1 '23
Gold Dust twins and the Little Fairy stage a return engagement. B. A. Grimes. il Ptr Ink 125:25-7 O 18 '23
Growth from an idea of the Duofold pen. J. Henle. Ptr Ink 120:118+ S 28 '22
How too much price appeal can slow down business impetus. S. C. Lambert. Ptr Ink 119:61-2+ Ap 27 '22
Market for quality products is strengthening. C. C. Parlin. Ptr Ink 119:80-1+ Je 22 '22
Prestige copy must ring true. J: P. Wilder. il Ptr Ink M 4:40-1 D '21
Starts in basement; made great through advertising. C. M. Harrison. Ptr Ink 117:41-2+ D 15 '21
To impress the dealer with the quality of your product. G: H. Wicker. Ptr Ink M 6:30 My '23
What becomes of my product? D. Hubbard. Ptr Ink 123:57-8+ Ap 26 '23
When quality line prestige can carry cheaper goods. G. A. Nichols. Ptr Ink 124:41-2+ Ag 2 '23

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Rating

Inquiries or orders? Ptr Ink 119:170+ Je 1 '22

Sampling idea

Sampling idea as applied to general advertising. Ptr Ink 121:73-4 N 16 '22

Signatures

Incomplete addresses costly to advertisers. Ptr Ink 123:145-6 My 31 '23

See also Advertisements—Name plates

Small space

See Advertising, Small space

Specimens

Envelope enclosures or stuffers. Inland Ptr 69:376a-h Je '22
Examples of advertising typography and design produced in the Bundscho shop, Chicago. Inland Ptr 69:696a-h Ag '22

Success appeal

Successful manufacturers find way to advertise prosperity. J. True. Ptr Ink 120:109-11 Ag 10 '22

Testimonials

Colgate directs attention to testimonial in unusual way. Ptr Ink 118:77-8 F 9 '22
Consumer, dealer and salesman tied up with the factory. J: A. Lutz. Ptr Ink 119:149-50+ My 18 '22
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Testimonial advertising that steps up the reader's conception of a product; twist drills. K. Kendig. Ptr Ink M 7:100+ O '23
Uncle Sam's endorsement in advertising copy. J. F. Richter, jr. Ptr Ink 123:8+ My 3 '23
When the consumer writes your advertisements. D. Hubbard. il Ptr Ink M 7:26-8 Jl '23
When well-known people sponsor the sales message. W. H. Heath. Ptr Ink 123:137-8+ My 31 '23

Testing

Checking up on the big idea. Ptr Ink 117:77-80+ D 29 '21
Insuring copy before it is run; eleven methods of testing copy in advance. R. R. Updegraff. Ptr Ink 121:3-4+ D 7 '22
Pepsodent's success won in badly crowded field. Ptr Ink 123:89-92 Je 7 '23
Selecting the selling appeal. R: B. Franken. Ptr Ink M 7:26-8+ S; 46+ O '23

Thrift appeal

Beating price competition with an economy appeal; national campaign of the F. E. Booth co. R. Cole. Ptr Ink 121:53-4+ D 14 '22
Do it yourself as an advertising theme. A. L. Townsend. Ptr Ink 119:41-2 Je 1 '22
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Advertisements—Thrift appeal—*Continued*
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See also Advertisements—Name plates

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See also Employment systems—Advertising

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Advertisements, Pictorial—*Continued*
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What advertising means to America. A. D. Lasker. Ptr Ink 119:105-6 My 4 '22
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Advertising—*Continued*
industry and trade; Spectacles; Sugar industry and trade; Sweet potatoes; Taxicab companies; Tea; Technical products; Telephone companies; Textile industry; Theaters; Tractor industry and trade; Trade marks; Trust companies; Underwear; Vinegar; Wall paper; Warehouses; Washing machines, Electric; Watches; Water companies; *also* American association of advertising agencies; American newspaper publishers association—Bureau of advertising; Association of national advertisers

Accounting

Form for recording inquiry and sales costs. Ptr Ink 121:157-8 O 26 '22
What expenditures should be charged to the advertising account? J: A. Murphy. Ptr Ink 121:3-4+, 129-30+ N 16-23 '22

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Advertise to the architect in his own language! A. L. Townsend. Ptr Ink 124:89-90+ Jl 12 '23
Advertising which gains the attention of the architect. Ptr Ink M 7:104+ O '23
Architectural committee tells how manufacturers can make their advertising better. H. W. Stokes. Ptr Ink 119:117-18+ My 18 '22
Catching the interest of the much-advertised-to prospect. D. Kirkland. il Ptr Ink 118:8+ Ja 26 '22
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Booklets that teach boys how to play. K. B. White. Ptr Ink M 5:33-4+ N '22
Car cards serve educational purpose in schools. Ptr Ink 117:17 N 17 '21
Creating novelties in samples for children. A. L. Townsend. Ptr Ink 118:81-2 Mr 23 '22
Does your research embrace the boy of today? J. H. Wilson. Ptr Ink 118:33-4+ Mr 16 '22
How shredded wheat uses school chart to build future sales. M. H. Watrous. Ptr Ink M 6:112+ My '23
Ideas that are making sales to and through children. D. Gridley. Ptr Ink M 7:31-2 N '23
Junior catalogue rounds up juvenile buyers. M. Hastings, jr. Ptr Ink M 4:27+ Ap '22
Miniature product—how and why it is marketed. J: A. Murphy. il Ptr Ink M 6:21-3+ F '23
Mother tells of the advertising that appeals to her children. M. A. Bartlett. Ptr Ink 117:129-30+ N 17 '21
Planning direct advertising to appeal to children and through them to their parents. R. E. Ramsay. il Inland Ptr 71:383-6 Je '23
30,000 children advertise this product. J. F. Cameron. Ptr Ink M 4:86+ F '22

See also Toys—Advertising

College students, Appeal to

Fitting the copy to the medium; Williams' shaving cream talks to college students. Ptr Ink 120:8+ S 7 '22

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Demonstrating a new product at salesmen's convention. C. M. Harrison. Ptr Ink 120:89-90+ Jl 20 '22

Continuity

Borrowed millions, and stopped advertising. Ptr Ink 121:197+ O 19 '22
History of nationally advertised articles which have ceased their activity. Ptr Ink M 5:99+ Ag '22
Sales—sustained or suspended? A. H. Deute. Ptr Ink 122:10+ F 15 '23
Some fallacies concerning seasonal advertising. Ptr Ink 122:93-4+ F 8 '23
Steady advertising produces steady employment. R. Dickinson. Ptr Ink M 7:48+ N '23
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Armour is teaching better buying to reduce cost of selling. J. S. Older. Ptr Ink 123: 161-2 Je 7 '23
Better retail merchandising follows Sellers campaign. O. P. Perkins. Ptr Ink 117:153-4 N 17 '21
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Can files prevent retail waste of advertising material? Ptr Ink 119:20 Je 8 '22
Children's miniature model helped introduce Warner corsets in Canada. R. A. Gibney. Ptr Ink 125:162+ O 4 '23
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How can we get our dealers to advertise? bibliog Ptr Ink 123:121-2+ My 17 '23
How do your salesmen sell your campaign to dealers? T. W. McAllister. Ptr Ink 125:41-2+ N 1 '23

Advertising—Dealer cooperation—*Continued*
How 400 advertisers are preventing waste in dealer helps. J: A. Murphy. Ptr Ink 122: 3-4+ Ja 11; 33-4+ Ja 18 '23
How 4,000 dealers were sold a dealer help campaign; Acme white lead and color works. A. J. Reiss. Ptr Ink M 6:63+ My '23
How Johns-Manville is selling its consumer campaign to the dealer. C. B. Larrabee. il Ptr Ink 122:61-2+ Mr 22 '23
How seventy-three manufacturers are fighting the summer slump. W: T. Hague. Ptr Ink 123:3-4+ Je 14 '23
How Western electric handles dealers' mailings. E. B. Weiss. Ptr Ink 121:69-70+ N 2 '22
How Willard is getting dealers to advertise. C. B. Larrabee. Ptr Ink M 7:27-8 O '23
Increases Kyanize advertising to keep up dealers' courage. D. Kirkland. Ptr Ink 117: 69-70+ N 24 '21
Intense local concentration made this dealer campaign successful; Edison lamp works puts on special two-weeks' campaign. R. Cole. Ptr Ink 118:146+ Mr 9 '22
It makes us friends, then customers. E. F. Wellinghoff. il System 42:158 Ag '22
Letters that sell dealer helps to foreign dealers. S. C. Lambert. Ptr Ink 121:89-90+ N 9 '22
Making dealers appreciate sales helps that cost nothing. J. M. Mosely. Ptr Ink M 5: 42 S '22
Manufacturer signs up dealers for newspaper advertising. A. J. Reiss. Ptr Ink 118:117-18+ Mr 23 '22
Manufacturer's work preliminary to the advertising; Fruhauf brothers, New York. W: P. Tuttle. Ptr Ink 123:65-6+ My 10 '23
New product is added to an old line; Round Oak gas range. Ptr Ink 122:153-4 Mr 1 '23
Picking out the dealer's leader. R. Bostick. Ptr Ink 118:53-4 F 16 '22
Putting the dealer into picture form. D. G. Miller. Ptr Ink M 4:76+ My '22
Retail advertising man discourses on advertising co-operation. W. T. White. Ptr Ink 117:121-2 D 1 '21
Sells a part of the product first; then the product itself. C. M. Harrison. Ptr Ink 120: 85-6+ Jl 27 '22
Should manufacturers control dealer advertising? H. Tipper. Automotive Ind 47:1190-1 D 14 '22
Telling the retailer about consumer acceptance. A. Nathan. Ptr Ink 119:89-90 Je 8 '22
These charts help salesmen explain advertising to dealers. R. Cole. Ptr Ink M 4:19-20 F '22
Ways of winning the indifferent dealer. A. L. Townsend. Ptr Ink 117:69-70+ D 29 '21
What is the best way to announce an advertising campaign to the trade? J: A. Murphy. Ptr Ink 123:41-2+ Ap 12 '23
When manufacturers operate the dealer's mail campaign. bibliog Ptr Ink 121:99-100 O 5 '22
Winning dealer co-operation with moving posters. Ptr Ink 124:169-70 S 20 '23

Dealers, Appeal to

Advertises after 25 years, gets 1,382 dealers in 14 days. C. M. Harrison. Ptr Ink 118: 17-18 Ja 12 '22
Advertising display containers into the dealer's consciousness. C. B. Larrabee. Ptr Ink 122:73-4+ Mr 29 '23
Advertising that furnishes dealers with over-the-counter talk. M. W. Sohn. Ptr Ink 125: 145-6+ O 4 '23
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Advertising X-rays of the product to dealers; the Coffield washer company. S. C. Lambert. Ptr Ink 124:81-2+ Ag 9 '23
Boosts jobber to retailer; gains co-operation of both. G. A. Nichols. Ptr Ink 121:117-18+ D 7 '22
Dealers' interest maintained by easy-to-buy offers; the Rust craft publishers. H. Burwen. Ptr Ink 124:73-4+ Jl 19 '23
Dealers shown that experience with a product will help sell it. A: Belden. Ptr Ink 123:113-14 My 3 '23
Gaining national distribution without specialty salesmen; Owens stapletied toothbrush. M. Hastings, jr. Ptr Ink 124:3-4+ S 13 '23
Getting the proper background for business-paper copy. R. L. Burdick. Ptr Ink 123:89-90+ Ap 19 '23
How Marmon builds its distributing organization. H. L. Peterson. Ptr Ink 121:33-4+ N 9 '22
How Phenix cheese company sells a business instead of just the product. Ptr Ink 124: 33-4+ Jl 19 '23
How the National lead company emphasizes turnover to its dealers. Ptr Ink 123:57-8 Ap 5 '23
How to use humor in advertising to the dealer. A. L. Townsend. Ptr Ink 125:81-2+ O 18 '23
How Westinghouse air-spring sales possibilities were broadened; exclusive rights to dealers. A. Belden. Ptr Ink 124:25-8 S 13 '23
Increased turnover is Rice & Hutchins message to retailers. H: Burwen. Ptr Ink 120: 85-6 S 14 '22
Keeping a growing business friendly; unusual personal touch copy of Moxie company. J. M. Mosely. Ptr Ink 122:124+ Ja 4 '23
Keeping dealers in touch with association advertising. R. Branner. Ptr Ink 123:61-2+ Ap 19 '23
Partnership letters that bring dealer response. W: B. Leach. Ptr Ink 124:73-4+ Ag 2 '23
Planning direct advertising to sell goods to dealers. R. E. Ramsay. Inland Ptr 70:841-4 Mr '23
Sales tips instead of sales arguments; Du Pont company markets Pontop. R. Davis. Ptr Ink M 7:43-4 O '23
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Sells merchandising ideas and gets orders for the merchandise. J. True. Ptr Ink 120: 36+ S 7 '22
Success stories of Kelvinator dealers make popular trade appeal. J. P. Derum. Ptr Ink 124:33-4+ Ag 23 '23
Talking to the dealer in a new language. S. C. Lambert. Ptr Ink 117:77-8+ D 15 '21
300-turnovers-a-year wins dealers in Bond bread campaign. R. Cole. Ptr Ink 120:73-4+ O 12 '22
Trade advertisement as a dealer selling chart. W. B. Edwards. Ptr Ink 124:100-1+ Jl 5 '23
Van Camp advertising to sell the complete line. A: Belden. Ptr Ink 124:125-6+ Jl 5 '23
Weaning dealers away from price talk. Ptr Ink 125:142 O 25 '23

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Advertising does not have to lower retail prices to justify itself. J: A. Murphy. Ptr Ink 120:133-4+ S 14 '22
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Justification of advertising in marketing fruit. J. Thomas. Ptr Ink 120:73-4 Ag 24 '22
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What inspires the nation's impulse to produce? H: Eckhardt. Ptr Ink 122:10+ Ja 18 '23

Advertising—Economic aspects—*Continued*
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Advertising your products to key men; American Bosch magneto corporation. K. B. White. il Ptr Ink M 5:19+ Ag '22
Bringing the family of products under one roof. W. B. Edwards. Ptr Ink 122:33-4 Ja 25 '23
How the American sugar company has entered a new field. J. Henle. Ptr Ink 120:41-2+ Ag 31 '22
How the family idea works in shoe advertising. R. K. Sewell. Ptr Ink 118:53-4+ Ja 26 '22
How to give a selling introduction to new member of a family of products. Ptr Ink 125:10+ N 1 '23
Making one advertised article get market for another. Ptr Ink 120:116 Jl 13 '22
New factory, new goods, new sales plans, announces Kleinert. R. Cole. Ptr Ink 118:48+ F 23 '22
Palmolive leaders sponsor newest member of family; Palmolive after shaving talc. Ptr Ink 124:10+ S 20 '23
Putting hooks into the advertising; Berkey & Gay's adaptation of family of products idea in furniture selling. C. M. Harrison. Ptr Ink 119:149+ Je 8 '22
Several products can be advertised in the same advertisement. J: A. Murphy. Ptr Ink M 7:17-18+ S '23
Van Camp advertising to sell the complete line. A: Belden. Ptr Ink 124:125-6+ Jl 5 '23

Farmers, Appeal to

Advertising significance of diversified farming. E. B. Weiss. Ptr Ink 118:73-4+ Mr 9; 119:101-2+ Ap 13 '22
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Advertising's next big job to help the farmer; purebred livestock. L. G. Hood. Ptr Ink 121:33-4+ O 26 '22
Armour's advertising takes hams back to the farm. Ptr Ink 124:33-4 S 27 '23
New woman on the farm. F. Crissey. Ptr Ink 120:3-4+ S 28 '22
Planning direct advertising to appeal to farmers. R. E. Ramsay. Inland Ptr 71:681-3 Ag '23
Sales drive that brought a 300 per cent increase. R. Cole. Ptr Ink 120:96+ Ag 3 '22
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What kind of circular gets my orders? W. S. Corsa. il System 41:421-3+ Ap '22
Winning the farmer with fact copy. A. L. Townsend. Ptr Ink 119:125-6+ My 11 '22

See also Advertising mediums—Farm papers

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Consumer inquiries—do they slow up sales? A. H. Fairbanks. Ptr Ink M 5:68+ N '22
Getting all the business possible out of advertising replies. R. Dickinson. Ptr Ink 120:3-4+ Jl 6 '22
Inquiries—the close-ups of your prospects. P. K. Marsh. Ptr Ink M 5:60+ Jl '22

See also Follow-up systems

Jobber cooperation

How definite price policy helps win jobber good-will. G. A. Nichols. Ptr Ink 122:17-20 Mr 8 '23
Securing jobber and dealer co-operation in advance of the campaign. Ptr Ink 122:73-4+ F 22 '23

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Liquor advertising before the law. J: F. Richter, jr. Ptr Ink 122:25-7+ Mr 29 '23
Many states still lack protection of Printers' ink model statute. Ptr Ink 121:101-2 O 26 '22
Right of advertisers to use customers' names. Ptr Ink 122:68 Mr 29 '23
Use of word government forbidden in advertising. Ptr Ink 123:12 Ap 19 '23
What Canada's new advertising matter ruling means. Ptr Ink 122:132+ Ja 25 '23
When Uncle Sam is the hero of the advertisement. A. L. Townsend. il Ptr Ink 125:133-4+ N 1 '23

See also Advertising, Fraudulent; Advertising contracts

Leaders

Adaptation, then advertising; ready-made bow ties. H: Burwen. Ptr Ink 123:65-6+ Ap 5 '23
Advertising changes a commonplace staple into an important specialty. R. Cole. il Ptr Ink 119:109-10+ Je 29 '22
Big drive on monthly leaders gets more sales for whole line. C. B. Larrabee. il Ptr Ink M 4:25-6 Ja '22
Concentration on leaders results in elimination of trailers; Tricker aquatic plants. J. V. Twain. Ptr Ink M 5:86+ S '22
Giving the clothes line a name. J. Henle. Ptr Ink 121:133-4+ D 7 '22
Handkerchiefs advertised to stimulate a whole line. J. True. Ptr Ink 119:53-4+ My 4 '22
Increasing the business on two brands with one; Cushman grade A bread. J. True. Ptr Ink 123:74+ Ap 5 '23
Must a new competitive leader have dramatic talking points? D. Kirkland. Ptr Ink 117:129-30+ D 1 '21
Selling hair pins in a bobbed-hair market. R. Cole. Ptr Ink 120:108+ Jl 27 '22
Sixty-five-year-old private brand concern puts out new leader. R. Bostick. Ptr Ink 118:33-4 Ja 19 '22
Superseding a leader after thirty-five years. Ptr Ink 118:134 Mr 23 '22
When advertising pressure on one item sells whole list; Morton salt company. G. A. Nichols. Ptr Ink 123:101-2+ Ap 12 '23
When the leader competes with the rest of the line. C. B. Larrabee. Ptr Ink 123:25-8 Je 7 '23
Whole line basks in reflected glory of an advertised leader; Quaker hosiery company introduces chiffon hosiery. J. True. Ptr Ink 123:113-14+ Je 14 '23

See also Advertising—Family of products

Manufacturers, Appeal to

Du Pont markets a new product by direct mail. Ptr Ink 124:88 S 6 '23

Men, Appeal to

Advertising to married men. J. Henle. Ptr Ink M 6:37-8 Ja '23
Planning direct advertising to sell goods or services to men personally. R. E. Ramsay. Inland Ptr 71:79-82 Ap '23
Who buys your merchandise? E. B. Weiss. Ptr Ink M 7:38-40 Ag '23

Physicians, Appeal to

Arousing the professional man's interest with a friendly appeal; campaign for the A. E. Little shoe. Ptr Ink 121:93-4+ D 14 '22

Advertising—*Continued*

Premiums

Redeem more coupons, object of Wrigley advertising. Ptr Ink 118:92+ Ja 19 '22

Price relations

See Advertising—Economic aspects

Prize contests

Consumer contest to stimulate knitting. Ptr Ink 123:225 Ap 26 '23
Contest that dug up answers to sales objections. B: Berfield. Ptr Ink M 6:46+ F '23
Getting clerks to tell you how much they know; E. C. Atkins & company run an unusual contest. W. B. Edwards. Ptr Ink 124: 126+ Ag 30 '23
Getting jobbers, dealers and the public together on one contest. J. True. Ptr Ink 121: 117-18+ N 30 '22
Gillette Christmas merchandising plan. Ptr Ink 121:105-6 O 26 '22
How Grape-nuts is advertising to become a two-class product. B: Berfield. Ptr Ink 123: 17-18 My 17 '23
How South Bend bait co. advertises $2,000 contest. il Ptr Ink M 7:116+ N '23
How we increased our trading population. System 43:53-4+ Ja '23
Jingle contest helps local dealer advertise used cars. Ptr Ink 123:115-16 My 17 '23
Prize contest to help solve a marketing problem; the Milton Bradley company appeals to both children and parents. Ptr Ink 125: 140+ O 18 '23
Prize contests to supply advertising ideas. Ptr Ink 121:181 N 16 '22

Psychology

Tracing lost sales into people's minds. R. R. Updegraff. Ptr Ink 122:41-2+ Ja 11 '23

Rates

Considering the flat or conditional rates. G. L. Caswell. Inland Ptr 71:705-6 Ag '23
Should department store advertising rates be increased? Ptr Ink 125:41-2+ O 11 '23
Where can rates be reduced? G. L. Caswell. Inland Ptr 68:377 D '21

Records

How a Milline chart may lessen chances of a sales slump. B: Jefferson. Ptr Ink 123:25-8 My 31 '23
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Schedules

Is a publisher justified in shifting scheduled advertisements? R. Bostick. Ptr Ink 125: 109-10 O 4 '23

Societies

See also Associated advertising clubs of the world; Association of national advertisers

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Each time we advertise our sales jump. H: Burwen. Ptr Ink 121:17-19 O 19 '22
Four-year record of the month's advertising. Published in Printer's ink, the second issue of each month
Volume of advertising in monthly magazines. Published in Printer's ink, the second issue of each month

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Complete course in advertising and advertisement writing. 30p Walhamore co., Philadelphia '21
Legion of ad clubs continues to grow. Ptr Ink 123:41 Ap 5 '23

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Orders by wire; some examples of the use of telegraph and telephone in sales and advertising. R. Dickinson. Ptr Ink 122:69-70+ F 8 '23

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Save the surface campaign plans for advertising support from labor unions. Ptr Ink 121:101-2+ D 21 '22

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Changed copy appeal gives Wildroot hair tonic a new market. W. Bates. Ptr Ink 125: 73-4+ O 25 '23
Feminine appeal in advertising. M. E. Matlack and W: H. Matlack. Am Gas J 117: 316-18 O 7 '22
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Helpfulness—the big idea in advertising to women. I. B. Allen. Ptr Ink 123:138+ Je 14 '23
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Planning direct advertising to sell goods or services to women personally. R. E. Ramsay. il Inland Ptr 71:231-4 My '23
Realism in advertising to women. J. Henle. il Ptr Ink M 5:33-4 Jl '22
When lovely woman buys. J. H. Collins. Ptr Ink M 4:46+ D '21
When the women read the ads. U. V. Wilcox. Ptg Art 42:35-8 S '23
When will life insurance reach its ultimate consumer? J. H. Collins. Ptr Ink 124:17-20 Jl 19 '23
Who buys your merchandise? E. B. Weiss. Ptr Ink M 7:38-40 Ag '23

Young people, Appeal to

Making youth the bull's-eye of the advertising target. R. Giles. Ptr Ink 120:57-8+ S 14 '22

Africa

Advertising art of foreign countries. Ptg Art 41:133-40 Ap '23

Australia

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Belgium

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French mentality and advertising. E. Sampson. Ptg Art 41:481-4 Jl '23

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Germany forging ahead in aggressive advertising. H. Jackson. Ptr Ink 119:121-2 Je 1 '22

Honolulu

Honolulu's Chinatown turns to advertising. O. Atkinson. Ptr Ink 124:122+ Ag 2 '23

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Italy

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Japan

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Advertising—*Continued*

Latin America

Advertising art of foreign countries. il Ptg Art 40:43-51 S '22

Mexico

Advertising art of foreign countries. Ptg Art 40.447-53 Ja '23

Netherlands

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Russia

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Scandinavia

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South America

Advertising art of foreign countries. il Ptg Art 41:579-85 Ag '23

Spain

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Advertising, Association

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Advertising, Cooperative—*Continued*
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See also House organs; Publicity

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Manufacturer and advertising agency should co-operate more closely. F. H. Sisson. Ptr Ink 117:33-4+ D 8 '21
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See also Advertising, Soliciting of

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Where is the money for advertising? Ptr Ink 117:87-8+ D 29 '21

See also Bank advertising

Advertising and employees

See Employment management—Advertising aids; Employment systems—Advertising

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Smoothing the professional frown against advertising medical products. Ptr Ink 121:101-2 D 7 '22

Advertising and prices. See Advertising—Economic aspects

Advertising and salesmen
Advertising portfolios for the sales force. Ptr Ink 122:8+ F 22 '23
Does advertising take the place of salesmen? J: A. Murphy and D. MacLean. Ptr Ink 123:3-4+ My 24 '23
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See also Show cards

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See also Associated advertising clubs of the world; New England association of advertising clubs; New York advertising club

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Advertising libraries. See Business libraries

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See also Advertising cutouts

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See Aeronautic research; Aeronautics; Air routes; Airplane engines; Airplanes; Airships; Aviation

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21st general meeting and annual spring session, New York city, May 26. Chem & Met Eng 26:1014-15 My 31 '22; Iron Tr R 70:1542-3 Je 1 '22; Blast F & Steel Pl 10:301-2 Je '22
22d semi-annual meeting, New York, Oct. 27. Blast F & Steel Pl 10:541-2 N '22; Chem & Met Eng 27:867-8 N 1 '22; Iron Age 110: 1125-39 N 2 '22; Iron Tr R 71:1186-1206 N 2 '22
23d general meeting, New York, May 25. Iron Tr R 72:1594-5 My 31 '23; Iron Age 111:1545-9 My 31 '23; Chem & Met Eng 28:987 Je 4 '23; Blast F & Steel Pl 11:311+ Je '23
24th semi-annual meeting, New York. Iron Age 112:1163-5 N 1 '23; Iron Tr R 73:1226-7+ N 1 '23

American iron, steel and heavy hardware association
13th annual convention, Washington, May 23-25. Iron Tr R 70:1584-5 Je 1 '22; Iron Age 109:1521+ Je 1 '22

American leather chemists' association
19th annual meeting, Bigwin Inn, Muskoka, June 21-23. Can Chem & Met 6:159-60 Jl '22

American malleable castings association
Enlarging activities. Iron Age 110:1315-16 N 16 '22

American management association (formerly National personnel association)
American management association. Management Eng 4:272-3 Ap '23
Annual convention, New York, Oct. 29-31. Iron Tr R 73:1318 N 8 '23
Organization meeting, New York, March 14. Mech Eng 45:327 My '23
Supplants National personnel body devoted to human factor. Iron Tr R 72:889 Mr 22 '23

American manufacturers of toilet articles
29th annual meeting, New York, April 10-12. Oil Paint & Drug Rep 103:20 Ap 16 '23

American marine association
Annual meeting, New York, Dec. 10. Marine Eng 27:766 D '22
Marine congress, conventions and exposition, New York city, November 5-10. Marine Eng 28:681-4+ N '23

American marine standards committee
Marine standards committee ready for action. Marine Eng 28:411-12 Jl '23
Meeting, New York, April 17. Marine Eng 28:256 My '23

American merchant marine library association
Plan library on each American ship. Marine R 52:326 Ag '22
Story of the American merchant marine library association. E. B. Tower. Special Lib 14:69-72 My '23

American mining congress
25th annual convention, Cleveland, Ohio. Coal Age 22:526-8, 633-4. 715-16 O 5, 19, N 2 '22; Comm & Fin Chr 115:2119-20 N 11 '22; Eng & Min J 114:729-32 O 21 '22; Iron Tr R 71:979 O 12 '22
26th annual convention, Milwaukee, Wis., Sept. 24-29. Coal Age 24:459, 523-6, 593-6 S 20, O 4, 18 '23; Eng & Min J 116:593-5 O 6 '23

American museum of natural history. See New York (city)—American museum of natural history

American newspaper publishers' association
Newspaper convention endorses agency commission system. Ptr Ink 119:25-8+ My 4 '22
Report of annual convention. Ptr Ink 123: 25-8+ My 3 '23

Bureau of advertising
Newspaper advertising bureau reports increased business. Ptr Ink 123:10+ Ap 26 '23
Year of expansion for newspaper Bureau of advertising. Ptr Ink 119:10+ Ap 27 '22

American oil chemists society
13th annual convention, New Orleans. Chem & Met Eng 26:1186-7 Je 21 '22; J Ind & Eng Chem 14:659-60 Jl '22
14th annual convention, Hot Springs, April 30-May 1. Chem & Met Eng 28:895-6 My 21 '23

American oil men's association
A.O.M.A. draws big crowd. W. K. Halbert. Net Pet N 15:25-6 Mr 14 '23
A.O.M.A. to foster industrial peace among all branches. E. E. Smith. Nat Pet N 15:30-2b Mr 14 '23
Mid-year business session, Chicago, Oct. 2-4. Oil Paint & Drug Rep 104:20 O 8 '23
New oil association is launched; will convene March 6, 7 and 8. Nat Pet N 15:17-18 F 21 '23

American order of steam and electrical engineers
36th annual convention, Philadelphia, June 5-9. Power 55:993 Je 20 '22

American paper and pulp association
45th meeting, New York, April 10-14. Paper 30:134-40+ Ap 19 '22
46th annual meeting, New York, April 12. Paper 31:7-10 Ap 18 '23; Paper Tr J 76: 287+ Ap 12 '23
Paper men hold conference in Chicago. Paper Tr J 77:62+ O 18 '23

American petroleum institute
Co-operation urged at annual meeting of fuel men with S. A. E. Automotive Ind 45:1128-9 D 8 '21
Many new avenues for research work cited at technical sessions. V. B. Guthrie. Nat Pet N 13:41-3 D 14 '21
2d annual meeting, Chicago, Dec. 6-8. Nat Pet N 13:23-4 D 14 '21; Oil Paint & Drug Rep 100:9-13+ sec 2 D 12 '21
3d annual meeting, St Louis, Dec. 6-8. Nat Pet N 14:24-5 D 13 '22; Oil Paint & Drug Rep 102:44c-f D 18 '22; Am Pet Inst Bul 3:1-150 D 30 '22; Soc Auto Eng J 12:118-21 Ja '23

American photoengravers' association
27th annual convention, Chicago, July 19-21. Inland Ptr 71:715-16 Ag '23

American physical society
Minutes of the Chicago meeting, Dec. 1 and 2, 1922, and abstracts of papers. Phys R 21: 195-215 F '23

American phytopathological society
13th annual meeting, Toronto, Canada. Sci Am 126:231 Ap '22

American-Polish chamber of commerce and industry in the United States
3d annual meeting, New York city, May 18. Am Ind 22:34 Je '22

American public health association
50th annual meeting and semicentennial celebration, New York city, Nov. 14-18. Pub Works 51:414-16 N 26 '21
52d annual meeting, Boston, Oct. 8-11. Eng N 91:654-5 O 18 '23
Semi-centennial celebration, New York, Nov. 14-18. Eng N 87:869+ N 24 '21

American publishers' conference
National conference of publishers formed. Ptr Ink 118:28 Mr 23 '22

American pulp and paper mill superintendents' association
Convention, Kalamazoo, Mich., June 1-3. Paper Tr J 74:16-21 Je 8 '22
Convention, Springfield, Mass., May 31. Paper 32:9-14 Je 13 '23

American railway association
American railway association. 134p American railway assn., New York '21
Annual meeting, New York, Nov. 16. Ry Age 71:985-6 N 19 '21

American railway association—*Continued*

Car service division

Car service division appoints district managers; duties and suggestions. Ry Age 74: 243-4 Ja 20 '23

Equipment painting section

1st annual convention, Cleveland, Ohio, Sept. 4-6. Ry Age 75:446 S 8 '23; Ry Mech Eng 97:687-93 O '23

Freight claim division

31st annual session, Denver, June 20-22. Ry Age 73:21-2 Jl 1 '22

32d annual session, Montreal, May 29-Je 1. Ry Age 74:1338, 1373 Je 2-9 '23; Ry R 72: 1049-50 Je 16 '23

Freight station section

Annual meeting, Philadelphia, June 20-22. Ry Age 73:27-8 Jl 1 '22

Mechanical division

3d annual meeting, Atlantic City, June 14. Ry R 70:961-3 Je 24 '22; Elec Ry J 59:1003-4 Je 24 '22

4th annual meeting, Chicago, June 20. Ry Age 74:1537-1659 Je 23 '23; Ry R 72:1063-81, 1131-63 Je 23-30 '23; Ry Mech Eng 97:420-541 Jl '23

Purchases and stores division

3d annual meeting, Atlantic City, June 19. Ry R 70:963-4 Je 24 '22

Regional advisory boards

A.R.A. organizes regional advisory boards. Ry Age 74:1361-4 Je 9 '23; Abstract. Ry R 72:1052-3 Je 16 '23

Regional advisory boards. D. C. Conn. Ry Age 75:818-19 N 3 '23

Two newly formed regional boards hold meetings, Ohio valley and Great Lakes. Ry R 73:568-70 O 20 '23

Safety division

Annual meeting, St Louis, Mo., April 25-27. Ry Age 74:1097-8 My 5 '23

2d convention of Safety section, Chicago, May 3-5. Ry Age 72:1131-2 My 13 '22

Signal section

27th annual meeting, Spring Lake, N.J., June 14-16. Ry Age 72:1479, 1733-4 Je 17-24 '22; Ry R 70:1015-17 Je 24 '22

28th annual meeting, Chicago, March 13-15. Ry Age 74:638-57, 692-702, 705, 735-41 Mr 14-16 '23; Ry R 72:518-22 Mr 17 '23

Meeting, New York, Nov. 21-22. Ry Age 73: 983-4 N 25 '22

28 years' progress in signaling; some facts about the Signal association. Ry Age 74: 600-2 Mr 13 '23

Telegraph and telephone section

Annual convention, Colorado Springs, Sept. 18-20. Ry Age 75:541-2 S 22 '23

5th session, Richmond, Va., March 21. Ry Age 72:775-6 Mr 25 '22

6th session, Chicago, Dec. 12-14. Ry Age 73: 1141-2 D 16 '22; Ry R 71:865 D 16 '22

Transportation division

Annual meeting, Chicago, April 25. Ry Age 74:1107-9 My 5 '23

American railway bridge and building association

32d annual convention, Cincinnati, Ohio, Oct. 17-19. Ry R 71:554-60 O 21 '22; Ry Age 73: 747-52 O 21 '22

33d annual convention, Seattle, Wash., Oct. 16-18. Ry Age 75:709-15 O 20 '23; Ry R 73: 585-6 O 20 '23

American railway development association

14th annual convention, Denver, Colorado, May 10-12. Ry Age 72:1177-8 My 20 '22

15th annual convention, St Louis, Mo., May 9-11. Ry Age 74:1203-5 My 19 '23

Semi-annual meeting, Chicago, Nov. 10-11. il Ry Age 71:995-8 N 19 '21

American railway engineering association

A.R.E.A. completes most successful year. Ry Age 74:598-9 Mr 13 '23

23d annual convention, Chicago, Mar. 14-16. Elec Ry J 59:526-9 Mr 25 '22; Eng N 88: 498-501, 503 Mr 23 '22; Ry R 70:373-89 Mr 18 '22

24th annual convention, Chicago, March 13-15. Ry R 72:500-7+ Mr 17 '23; Elec Ry J 61: 523-5 Mr 24 '23; Eng N 90:539-44 Mr 22 '23; Ry Age 74:615-37, 657-61, 667-91, 702-9, 713-34 Mr 14-16 '23

American railway express company

Express company equipment. Sci Am 129:235 O '23

New rules for express employees announced. Ry Age 72:523-4 Mr 4 '22

American railway tool foremen's association

11th annual convention, Chicago, Aug. 29-31. Ry Age 75:398, 425-6 S 1-8 '23

American relief administration

Report on American measures for Russian famine relief. H. Hoover. Comm & Fin Chr 115:380-1 Jl 22 '22

American river, California

Hydroelectric development on the American river. map Am Inst E E J 41:341 My '22

American road builders' association

Abstracts of some of the papers presented at the 19th annual meeting. Eng N 88:202-4 F 2 '22

Annual meeting for the election of officers, New York city, May 15. Good Roads 62:284 My 17 '22

Election of new officers and directors. Good Roads 64:195 My 23 '23; Same. Eng & Contr (R & S) 59:1259 Je 6 '23

13th American good roads congress, Chicago, Jan. 15-19. Good Roads 64:35+ Ja 24 '23; Eng N 90:178 Ja 25 '23

19th annual convention, Chicago, Jan. 17-20. Eng N 88:152-6 Ja 26 '22; Good Roads 62: 23-7, 49-54 Ja 11, 25 '22; Pub Works 52:74-5 Ja 28 '22

American rolling mill company

Earning power of research as demonstrated by the experience of the American rolling mill company. D. M. Strickland. il Ind & Eng Chem 15:78-9 Ja '23

How we made last year our best year. G: M. Verity. il System 42:19-23+ Jl '22

See also Armco association

American savings building and loan institute

Lumber dealers help people save money to build homes. Ptr Ink 123:137-8+ My 24 '23

American short line railroad association

Annual meeting, Chicago, Oct. 3-4. Ry R 73:513-14 O 6 '23; Ry Age 75:677-8 O 13 '23

Annual meeting, Washington, April 25-26. Ry Age 72:1029-31 Ap 29 '22

Annual meeting, Washington, D.C., April 25-26. B. M. Robinson. Ry R 70:631-3 My 6 '22

American smelters securities company

23d annual report for the calendar year ended December 31, 1921. Comm & Fin Chr 114: 1429-31 Ap 1 '22

American smelting and refining company

A. S. & R. denies that it has not welfare of ore producers at heart. Eng & Min J 114: 555 S 23 '22

Outlook for American smelting & refining co. H. J. Wolf. Eng & Min J 114:171-2 Jl 22 '22

23d annual report for the calendar year ended December 31, 1921. Comm & Fin Chr 114: 1429-31 Ap 1 '22

24th annual report for the year ended Dec. 31, 1922. Comm & Fin Chr 116:1068-70 Mr 10 '23; Excerpt. Eng & Min J 115:518 Mr 17 '23

American society for municipal improvements

27th annual convention, Baltimore, Oct. 24-28. Pub Works 51:352-5, 377-8 N 5-12 '21

28th annual convention, Cleveland, Oct. 2-6. Eng N 89:627-8, 658-62 O 12-19 '22; Pub Works 53:183-7, 224-6 O-N '22

American society for steel treating
4th annual convention, Detroit, Oct. 2-7. Chem & Met Eng 27:727-30 O 11 '22; Iron Age 110:931-7 O 12 '22; Iron Tr R 71:1004-6 O 12 '22; Ry Mech Eng 96:647-50 N '22
4th sectional meeting, Bethlehem, Pa. Iron Age 111:1779-80+ Je 21 '23
5th annual convention and international exposition, Pittsburgh, Oct. 8-12. Iron Age 112:826-33, 981, 1047-58 S 27, O 11-18 '23; Iron Tr R 73:956-7, 1010-11, 1113-16 O 4-18 '23; Blast F & Steel Pl 11:513 O '23; Chem & Met Eng 29:756-7 O 22 '23; Foundry 51: 882-3 N 1 '23
Rise of steel treaters is rapid. E. F. Ross. Iron Tr R 73:951-5 O 4 '23
Sectional meeting of steel treaters, New York, March 3. Iron Age 109:647-8 Mr 9 '22
Technical sessions, Pittsburgh, May 25-27. Iron Tr R 70:1586-7 Je 1 '22; Iron Age 109: 1523 Je 1 '22

American society for testing materials
Activities in the field of ceramics. C. L. Warwick. Am Cer Soc J 6:219-23 Ja '23
Committee D-13 on textile materials meets in Atlantic City. Textile World 62:196 Jl 8 '22
Committee D-13 to broaden scope of activities discussed at meeting in Atlantic City. Textile World 64:69-70 Jl 7 '23
Fall meeting of committee D-13 in Philadelphia. Textile World 64:2627-8 N 3 '23
Influence of the work of the American society for testing materials upon the execution of public works. G: S. Webster. Am Soc T M Pro 21:39-46 '21
Progress in standardization of testing methods and specifications. C. D. Young. Can Eng 43:474-6 O 24 '22; Same. Eng & Contr 58:190-2 Ag 23 '22
Session on non-ferrous metals and corrosion of the 25th annual meeting. Metal Ind 20: 265 Jl '22
25th annual meeting, Atlantic City, June 26-30. Chem & Met Eng 27:14-16 Jl 5 '22; Eng N 89:28-32 Jl 6 '22; Iron Age 110:13-18 Jl 6 '22; Iron Tr R 71:46-8 Jl 6 '22; Ry Age 73:33 Jl 1 '22; Foundry 50:595-7 Jl 15 '22
26th annual meeting, Atlantic City, N.J., June 25-29. Iron Age 111:1861; 112:11-16 Je 28-Jl 5 '23; Iron Tr R 73:48-51 Jl 5 '23; Eng N 91:22-8, 52-7, 142-7 Jl 5-12, 26 '23; Chem & Met Eng 29:63-4 Jl 9 '23; Foundry 51:562+ Jl 15 '23; Metal Ind 21:283-4 Jl '23

American society of civil engineers
Address at the annual convention, June 21, 1922. J: R. Freeman. Am Soc C E Pro 48: 1351-6 Ag '22
Address at the annual convention in Chicago, July 11, 1923. C: F. Loweth. Am Soc C E Pro 49:1363-75 S '23
Am. Soc. C. E. again rejects affiliation in Federated engineering societies. map Eng N 90:683 Ap 12 '23
Annual convention, Portsmouth, N.H., June 19-20. Eng N 89:1094 Je 29 '22
Annual meeting, New York, Jan. 17-19. Eng N 90:166-9 Ja 25 '23
53d annual convention, Chicago, July 11-13. Eng N 91:102-3 Jl 19 '23
For and against the Am. Soc. C. E. joining the federation. Eng N 90:406-7 Mr 1 '23
Meeting, San Francisco, Oct. 16-19. Eng N 89: 663-4 O 19 '22
Spring meeting, Dayton, Apr. 5-7. Eng N 88: 620-2 Ap 13 '22
Three score years and ten. Eng N 89:729 N 2 '22

American society of heating and ventilating engineers
Semi-annual meeting, Buffalo and Detroit, June 6-10. Dom Eng 99:535-9+ Je 17 '22; Sanitary & Heat Eng 97:362-3 Je 16 '22; Sheet Metal Worker 13:371-3 Je 23 '22; Am Soc Heat & V E J 28:547-60 Jl '22; Heat & Ven 19:49-60 Jl '22
Semi-annual meeting, Chicago, May 21-23. Dom Eng 103:430-8+ Je 2 '23; Heat & Ven 20:51-60 Je '23; Sheet Metal Worker 14: 373+ Je 8 '23
28th annual meeting, New York, Jan. 24-26. Am Soc Heat & V E J 28:205-40 Mr '22; Power 55:199 Ja 31 '22; Dom Eng 98:226-30 F 4 '22; Heat & Ven 19:41-8 F '22; Sanitary & Heat Eng 97:74-7 F 10 '22; Sheet Metal Worker 13:18-21 F 3 '22
29th annual meeting, New York city and Washington, January 23-26. il Dom Eng 102:224-6+ F 3 '23; Sheet Metal Worker 14:20-1 F 2 '23; Sanitary & Heat Eng 99:90-1+ F 9 '23; Power Pl Eng 27:300-1 Mr 1 '23; Heat & Ven 20:51-3 F '23

Research laboratory
Reports of cooperative work by Laboratory and the U.S. Bureau of mines. Am Soc Heat & V E J 29:107-14 Mr '23
Research in the heating and ventilating field. J. I. Lyle. Am Soc Heat & V E J 27:873-7 D '21

American society of marine designers
Marine draftsmen change society's name at annual convention, New York, Nov. 17-19. Marine R 52:26 Ja '22
10th annual convention, New York. Nov. 18. Marine Eng 26:894 D '21

American society of mechanical engineers
42nd annual meeting, New York, Dec. 5-9. Mech Eng 44:11-21 Ja '22; Am Mach 55:985-6 D 15 '21; Iron Age 108:1554-6 D 15 '21; Iron Tr R 69:1476, 1568-70 D 8-15 '21; Power 54:954-68 D 20 '21; Mach 28:371-2 Ja '22; Management Eng 2:51-2 Ja '22
43d annual convention, New York, Dec. 4-7. Am Mach 57:944-944b D 14 '22; Elec W 80: 1288-91 D 9 '22; Iron Tr R 71:1644-6 D 14 '22; Power 56:906-36 D 12 '22; Elec Ry J 60:950-1 D 16 '22; Mech Eng 45:59-67 Ja '23
Fuel problems discussed at New Haven branch. Power 54:822-3 N 22 '21
2d annual meeting of the textile division. Textile World 60:3486 D 17 '21
Spring meeting, Atlanta, Ga., May 8-11. Elec W 79:1042 My 20 '22; Am Mach 56:746-7 My 18 '22; Iron Tr R 70:1414-16 My 18 '22; Power 55:832-3 My 23 '22; Mach 28:787 Je '22; Management Eng 2:376-7 Je '22; Power Pl Eng 26:588-9 Je 1 '22
Spring meeting, Montreal, May 28-31. Can Eng 44:567+ Je 5 '23; Iron Age 111:1625-7 Je 7 '23; Iron Tr R 72:1690 Je 7 '23; Power Pl Eng 27:653-5 Je 15 '23; Mech Eng 45:424-9 Jl '23; Power 57:913-14 Je 5 '23; Am Mach 58:856c-d Je 7 '23

American society of refrigerating engineers
Constitution and by-laws of the American society of refrigerating engineers, with alphabetical list of members. Refrig Eng 10: 37-49 Jl '23
9th western meeting, Detroit, May 24-26. Power 55:912-13 Je 6 '22
10th western meeting, St Louis, Mo., April 30-May 2. Refrig Eng 9:343-55 My '23
17th annual meeting, New York, Dec. 6-7. Power 54:991 D 20 '21
18th annual meeting, New York, Dec. 4-6. Refrig W 57:24-8 D '22; Refrig Eng 9:186-209 D '22

American society of sanitary engineering
17th annual meeting, Sandusky, Ohio, August 22-24. Sanitary & Heat Eng 98:140-5 S 8 '22; Dom Eng 100:414-17 S 2 '22
18th annual convention, Davenport, Iowa, Sept. 11-14. Dom Eng 104:592-9 S 22 '23; Sanitary & Heat Eng 100:181-7+ S 21 '23

American specification institute
American specification institute. Am Arch 123: sup14+ Ja 3 '23
Annual fall conference. Am Arch 120:490-2+; 121:40-5 D 21 '21-Ja 4 '22
Discussion of the plan and scope of the American specification institute. Am Arch 120:369-70, 415-16 N 9-23 '21

American steel and wire company

Industrial museum
Story of wire in picture and product; the industrial museum of the American steel & wire co. at Worcester. J: Nelson. il Iron Age 111:733-8 Mr 15 '23

American sugar refining company, Baltimore, Maryland
Boiler plant of the American sugar refining company, Baltimore, Md. il diag Power 56: 2-8 Jl 4 '22

American supply and machinery manufacturers' association
Annual convention, Atlantic City, N.J., May 8-10. Iron Age 109:1362-4 My 18 '22; Am Mach 56:760b My 18 '22
Convention, Cincinnati, May 17-19. Am Mach 58:782d My 24 '23; Iron Age 111:1491-2+ My 24 '23; Iron Tr R 72:1545-6 My 24 '23

American telephone and telegraph company
American telephone & telegraph company building. il plan Arch & Bldg 55:24-5, pl 54-61 Mr '23
Annual report for the year ending Dec. 31, 1921. Comm & Fin Chr 114:957-61 Mr 4 '22
Annual report for the year ending Dec. 31, 1922. Comm & Fin Chr 116:1064-8 Mr 10 '23
Savings we make by planning 20 years ahead. H. B. Thayer. il System 44:46-9+ Jl '23

American tobacco growers' co-operative exchange
Formation of American tobacco growers' co-operative exchange. Comm & Fin Chr 115: 2228 N 18 '22

American trade association executives
3d annual convention, Buck Hill Falls, Pa., Oct. 25-27. Nation's Business 10:52+ D '22

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American warehousemen's association
Directory, June, 1922. 11p Charles L. Criss, General Sec., 1110 Bessemer Bldg., Pittsburgh, Pa. '22

American water works association
42d annual convention, Philadelphia, Pa., May 15-19. Pub Works 52:379-81, 405-6, 427-9 My 27-Je 10 '22; Can Eng 42:528 My 23 '22
43d annual convention, Detroit, May 21-25. Can Eng 44:559-61 Je 5 '23; Eng & Contr (W W) 59:1326 Je 13 '23; Pub Works 54: 203-6, 226-8 Je-Jl '23
Annual meeting of Canadian section. Can Eng 42:501-2 My 16 '22
3d annual meeting of the Canadian section, Windsor, Ont., May 19-21. Can Eng 44:545-7 My 29 '23
Constitution, list of past presidents, list of officers 1922-1923, list of sections, list of committees 1922-1923, list of members. Am Water Works Assn J 9:supl-90 S '22; Published annually in September
Convention program, Philadelphia, May 15-19. Eng & Contr 57:457-8 My 10 '22
2d mid-winter meeting of the Canadian section, Toronto, February 22-23. Can Eng 44: 289-97 Mr 6 '23

American welding society
2d annual meeting, New York, April 24-27. Am Mach 58:680a My 3 '23; Elec Ry J 61: 773 My 5 '23; Iron Age 111:1261+ My 3 '23
3d annual meeting, Chicago, Oct. 2-5. Iron Age 110:929-30 O 12 '22
3d fall meeting, Pittsburgh, Oct. 24-26. Iron Age 112:1201 N 1 '23

American wheat growers' associated, inc.
Wheat growers in session in Minnesota. Comm & Fin Chr 117:845-6 Ag 25 '23

American wholesale coal association
6th annual convention, Detroit, June 1-2. E. W. Davidson. Coal Age 21:971-2 Je 8 '22
7th annual convention, Cincinnati, June 12-13. Coal Age 23:1023-4 Je 21 '23

American window glass company
Report for year ended Aug. 31, 1922. Comm & Fin Chr 117:1881-2 O 27 '23

American wood preservers' association
Annual meeting, Chicago, Jan. 24-26. Eng N 88:207+ F 2 '22
18th annual convention, Chicago, Jan. 24-26. Ry Mech Eng 96:209 Ap '22
19th annual convention, New Orleans, La., Jan. 23-25. Ry Age 74:333-7 F 3 '23

American woolen company
Building of the American woolen co. family. S. Sayward. il Textile World 60:3091+ N 26 '21
23d annual report for the fiscal year ending December 31, 1921. Textile World 61:1536 Mr 11 '22; Same. Comm & Fin Chr 114:1081 Mr 11 '22
24th annual report for the year ending Dec. 31, 1922. Comm & Fin Chr 116:1078-9 Mr 10 '23

American zinc institute
American zinc institute. F. E. Wormser. Eng & Min J 113:819-22 My 13 '22
Meeting at St Louis. P. R. Coldren. Eng & Min J 113:829 My 13 '22
Zinc institute decides on national campaign to advertise products. P. R. Coldren. Eng & Min J 115:854 My 12 '23

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Facts for the stockholder. Eng & Min J 116: 173 Jl 28 '23

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Americanization work proving successful. Elec Ry J 61:373 Mr 3 '23
Americanizing utility employees. Gas Age 51:281-2 Mr 3 '23
Building both citizens and team-workers. Factory 28:476+ Ap '22
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Pyrimidines from alkylmalonic esters and aromatic amidines. A. W. Dox and L. Yoder. Am Chem Soc J 44:361-6 F '22
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Amidophenol. See Amino phenols

Amines
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Architecture, Domestic—Designs and plans—*Continued*
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House of Joseph P. Knapp, Southampton, L.I., N.Y.; views and plans. Am Arch 122:230a-g, 231 S 13 '22
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Residence of John H. Tyson, Riverside, Connecticut. H. J. Butler. il plan Arch Rec 53: 66-79 Ja '23

Architecture, Domestic—Designs and plans—*Continued*
Residence of Mrs H. Lorillard Cammann, 7 Sutton place, New York city. il Arch Rec 51:131-9 F '22
Residence of Walter H. Merritt, Tenafly, N.J.; views and plans. Arch & Bldg 55:Dwelling house ser 9-10 My '23
Residence of Warren Bicknell, Cleveland, Ohio. I. T. Frary. il plans Arch Rec 53:202-22 Mr '23
Restoration of a southern colonial estate, York Hall, the residence of captain George P. Blow, Yorktown, Va. il Arch Forum 35: 211-20, pls 77-84 D '21
Row of modern two-family houses with novel floor plans and electric features. il plans Bldg Age 45:48-9 My '23
Six room house. diag plans Bldg Age 44:24-5 Ap '22
Six room house with unusual exterior; with quantity survey. il plans Bldg Age 45:52-6 Jl '23
Slight changes in details prevent sameness. il plans Bldg Age 44:24-5 N '22
Small brick house, Moorehead, Minn. Arch Forum 35:210 D '21
Small brick house with unusual wall texture. il plans Arch Forum 38:31 Ja '23
Some country house architecture in the Far West. E. Grey. il diags plans Arch Rec 52: 308-44 O '22
Some houses of Cleveland, Ohio; Meade & Hamilton, architects. Am Arch 123:320a-o Ap 11 '23
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Some recent works of Marston & Van Pelt. P. Duell. il plans Arch Rec 52:16-38 Jl '22
Spanish architecture adapted to modern apartments. il plan Bldg Age 45:82 Ja '23
Stucco two family house. il plans Bldg Age 44:53 Ja '22
Substantial house with garage attached; with quantity survey. il plans Bldg Age 44:34-7 Ag '22
Sun parlor and garage feature of this home. il Bldg Age 44:46 Ag '22
This house a feature of New York own your home show. il plans Concrete 20:154 Ap '22
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Town house of a new régime. H. D. Eberlein. il diags plans Arch Rec 52:402-14 N '22
Town house of Thomas W. Lamont. M. Price. il plans Arch Rec 51:210-32 Mr '22
Twin house design; convenient layout of five room home. il plans Bldg Age 44:37 S '22
Two family dwelling that looks like a one family design. il plans Bldg Age 44:38-9 D '22
Two family house. il plans Bldg Age 44:42 F '22
Two family house; with quantity survey. il plans Bldg Age 45:47-9 F '23
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Unique house in both design and plan; with quantity survey. il diags plans Bldg Age 45:52-5 Je '23
Unusual home design for small house on narrow lot. il plans Bldg Age 44:37 My '22
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Well planned small house design; with quantity survey. il plans Bldg Age 44:30-1 D '22
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See also Bungalows; Cottages; Miners' houses

Remodeling
See Houses, Remodeled

Belgium
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See Automobile laws and regulations

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See Snow motor

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See Barges, Concrete; Ships, Concrete

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Body temperature. See Temperature, Animal and human

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See also Carbon dioxide recorders

Boiler plants
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Boiler house of the American sugar refining company at Baltimore, Maryland. E. B. Powell. il diag Mech Eng 44:509-12 Ag '22
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See Boilers—Laws and regulations

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See also Baffles; Boiler cleaning; Boiler inspection; Boiler plants; Boiler plates; Boiler scale; Boiler tubes; Dampers; Draft; Feed water; Feed water heating; Feed water purification; Feed water regulation; Firing; Fuel economy; Furnaces, Boiler; Grates; Injectors; Locomotive boilers; Mechanical draft; Pumps, Feed water; Safety valves; Staybolts; Steam engines; Stokers, Mechanical; Water gages

Air heaters

See Air heaters

Baffles

See Baffles

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See also Boiler explosions

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Furnaces
See Furnaces, Boiler

Gas firing
Burning blast-furnace gas under boilers. G. Fox and F. H. Willcox. Power 54:930-1 D 13 '21
Gas fired steam boiler calculations. J. P. Leinroth. Gas Age 51:169-72 F 10 '23
Large power plant obtains efficient gas burning. il Pop Mech 38:578-9 O '22
Largest power boilers now in operation. il Pop Mech 38:860-1 D '22
Natural gas as a fuel for central stations. E. A. Quinn. il diags Elec W 81:575-7 Mr 10 '23
Power and fuel consumption of the iron and steel industries of the Pittsburgh district. S. B. Ely and W. F. Rittman. il Mech Eng 45:401-6 Jl '23
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Selling gas-steam boilers. E. W. Berchtold. Am Gas J 116:181-3 F 25 '22
Steam power from blast-furnace gas. G. Fox and F. H. Willcox. il diag Power 54:706-9 N 8 '21
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Use of natural gas under boilers. M. P. Youker. Gas Age 49:591-2 My 13 '22
Versuche mit gasbrennern an kesseln und Cowpern. E: Weymann. diags Stahl & Eisen 42:215-21 F 9 '22

See also Boilers, Heating—Gas firing; Boilers, Waste heat

Heat balance
See Boilers—Tables, calculations, etc.

Joints
Calculating the efficiency of boiler seams. R. J. Finch. diags Ry Mech Eng 96:193-6 Ap '22
Efficiency of butt and double-strap joint, double-riveted. Power 56:509 S 26 '22
Lap joints unsuitable for longitudinal seams of return-tubular boilers. diags Power 56: 29 Jl 4 '22
Making joints to withstand steam and hot water. W. S. Standiford. Power 58:337-8 Ag 28 '23
Strength of diagonal joint. diag Power 58: 309 Ag 21 '23

Laws and regulations
Boiler plant testing; suggestions for an improved international code. D. Brownlie. 168p Dutton '22; Review. Elec R (Lond) 91:430-1 S 22 '22; Power 56:740-1 N 7 '22
Comments on A.S.M.E. revised code for testing stationary boilers. D: Brownlie. Power 57:575-7 Ap 10 '23
Interpretation of the A.S.M.E. boiler code. diags Power 55:118-19, 198, 558-9, 834; 56: 300-1, 956; 57:998-9; 58:438 Ja 17, 31, Ap 4, My 23, Ag 22, D 12 '22, Je 19, S 11 '23
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Boilers—Laws and regulations—*Continued*
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Work of the A.S.M.E. boiler code committee. diag Mech Eng 44:63, 329-31, 397, 610-11; 45: 137+, 261, 443 Ja, My-Je, S '22, F, Ap, Jl '23

See also Engineering law

Manufacture

Boiler department at Elswick works. Engineering 114:366, 373 S 22 '22
Hammer-welding plant of the Blaw-Knox co. E. E. Thum. il diags Chem & Met Eng 25: 747-51 O 19 '21; Abstract. Mech Eng 43:819 D '21
Heater sections made in quantity. il Foundry 50:267-74 Ap 1 '22
Materials used in boiler construction. Power Pl Eng 27:245 F 15 '23
Works of the French Babcock and Wilcox company. il diags Engineering 113:674-6, pl 33-4 Je 2 '22

See also Boiler plates

Oil firing

Adjusting boiler room equipment to special needs. W. S. Dutton. il Factory 27:757-8 D '21
Advantages of oil as fuel. il diags Sanitary & Heat Eng 99:14-17+ Ja 12 '23
Automatic control for oil fired boilers. S. B. Derby. diags Power Pl Eng 27:875-6 S 1 '23
Boiler capacities obtainable per cubic foot of furnace volume. T. B. Stillman. diag Power 55:171-3 Ja 31 '22
Boiler plant operation at St Louis with fuel oil; cost table. Eng & Contr (W W) 60:525 S 12 '23
Boiler plant operation with fuel oil. K. L. Martin. diag Power Pl Eng 27:664-7 Jl 1 '23
Burning fuel oil economically. F. G. Parker. Power 56:940-1 D 12 '22
Burning oil in a stoker furnace. A. A. Fette. il diags Power 58:535-6 O 2 '23
Changing from coal to oil fuel does not eliminate combustion losses. J. W. Shaw. Power 58:148-9 Jl 24 '23
Comparative tests on coal and oil burning boilers. S. A. Smith, jr. Power 55:934 Je 13 '22; Discussion. 56:25, 27, 141-2, 297, 466, 698 Je 4, 25, Ag 22, S 19, O 31 '22
Comparison of coal and oil fuel costs under steam boilers. H. E. Collins. Power 56:951 D 12 '22
Defective oil-burning installation. R. A. Cultra. diag Power 58:542 O 2 '23
Don'ts for the boiler room. W. D. Halsey. Power 56:583 O 10 '22
Double port air register increases oil burning capacity. il diag Power Pl Eng 27:906 S 1 '23
Firing boilers with fuel oil. Blast F & Steel Pl 10:151-2 F '22
Franklin-Stephenson oil-burning furnace. diags Engineering 115:800-1 Je 29 '23
Free school for teaching oil burning. il Marine R 53:408-10 N '23
From coal to oil in twenty-six days at the New York Central plant, Yonkers, N.Y. il Power 56:712-13 N 7 '22; Same abr. Elec W 80:1107-8 N 18 '22; Same cond. Elec Ry J 60:777-8 N 11 '22
Fuel oil helps overcome strike menace. K. R. MacKinnon. diag Elec W 81:631-3 Mr 17 '23
Fuel oil in a Rhode Island central station. N. Stahl. il diags Elec J 20:210-13 Je '23
Fuel oil shows big saving in Singer building. N. King. il Power 56:348-52 S 5 '22
Guardian fuel-oil shutoff regulator. diags Power 55:97 Ja 17 '22
High efficiency oil-burning station. C. H. Delany. il Elec W 81:735-8 Mr 31 '23
Light-oil starting system for auxiliary plant. C. O. Lenz. plan Elec W 82:79-80 Jl 14 '23
New plant of the Barber asphalt co. il diags plans Power Pl Eng 27:709-16 Jl 15 '23
Oil as fuel in industrial power plants. D. Henderson. charts Power Pl Eng 27:974-6 O 1 '23
Oil-burner steam-consumption measurement. A. F. Brewer. diag Power 55:689 My 2 '22
Oil burning in high-pressure boilers. A. W. Patterson. diags Heat & Ven 19:47-9 N '22
Oil burning installation. Power Pl Eng 27: 648, 796-7 Je 15, Ag 1 '23
Oil burning under boilers. L. C. Breed. Iron Age 112:417-18 Ag 16 '23
Oil firing sixty-four boilers at Amoskeag. il diags plan Power 55:920-3 Je 13 '22
Oil fuel for steam generation. C. H. S. Tupholme. diag Power Pl Eng 27:412-13 Ap 15 '23
Operation of oil-burning steam plants. C. H. Delany. Iron Age 109:525-7 F 23 '22
Power plant equipped to burn fuel oil. il Ry Mech Eng 97:621-2 S '23
Remodeling power plant for fuel oil use. diags plans Elec Ry J 61:505-8 Mr 24 '23
Rules for operating small oil burning boilers. W. A. Darter. Power Pl Eng 25:1110-11 N 15 '21
Tamarack power plant. il diag plans Power Pl Eng 26:837-43 S 1 '22
War department turns to fuel oil. W. W. Bowman. il diags Power 58:327-9 Ag 28 '23
What causes tubes to blister with oil burning? Power 57:609, 729, 868, 909; 58:389 Ap 17, My 8, 29-Je 5, S 4 '23
Where steam gets 83.1 per cent of heat in fuel; plant of Atlantic refining co. equipped to burn oil, coal or gas. G. M. Levy. il diags Power Pl Eng 27:157-61 F 1 '23
Will it pay to burn oil instead of coal? W. F. Schaphorst. il chart Ry Mech Eng 97: 624 S '23; Same. Refrig W 58:26-7 Ag '23; Same. Heat & Ven 20:55-6 O '23
Yarrow water-tube boiler with Kermode system of oil-firing. il Engineering 115:430 Ap 6 '23

See also Boilers, Heating—Oil firing; Boilers, Marine—Oil firing

Pulverized coal firing

Air mixing feature part of pulverized coal burner. diags Power Pl Eng 27:907 S 1 '23
Application of pulverized coal to boilers. J. W. Fuller. Min & Met 180:35-6 D '21
Ashtabula steel co. uses pulverized fuel. il plans Power Pl Eng 27:808-12 Ag 15 '23
Burning coal dust on Coxe stoker. F. B. Orr. diags Power 56:223-4 Ag 8 '22
Burning pulverized anthracite mine waste. O. M. Rau. il diags Elec Ry J 58:945-9 N 26 '21; Same. Power 54:828-32 N 29 '21
Burning pulverized coal with reduced furnace volumes. M. W. Arrowood. diags Power 57: 417-19 Mr 13 '23; Correction. 57:656 Ap 24 '23
Le chauffage au charbon pulvérisé de la centrale de Milwaukee et de l'usine de l'United railways Co, à Providence (E.-U.). diag Génie Civil 82:154-6 F 17 '23
Chauffage au charbon pulvérisé des chaudières de la centrale électrique des mines de Bruay. Génie Civil 81:521-2 D 2 '22
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Design features of Cahokia station. diag plan Elec W 80:1461-3 D 30 '22
Developments in power station design. il diag Engineer 132:502-4 N 11 '21
Essais de chauffage d'une chaudière au charbon pulvérisé, aux Mines de Blanzy, à Montceau-les-Mines. diags Génie Civil 81:282 S 23 '22
Experience with powdered coal in Arizona. J. B. Johnson. diag Elec W 78:1121-3 D 3 '21
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How powdered coal is burned at Lakeside. Power 56:969-73 D 19 '23
Lakeside electric power station at Milwaukee. D. Brownlie. Engineer 135:480-1 My 4 '23
Modern industrial plant in Milwaukee burns pulverized coal. il diags Power 56:868-74 D 5 '22
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Powdered coal as fuel in steam plants. H. Kreisinger and J. Blizard. diags Eng Soc W Pa 38:169-81; Discussion. 182-200 Je '22

Boilers—Pulverized coal firing—*Continued*
Powdered coal installation, Whitaker-Glessner plant, Wheeling steel corp. il diag Power 58:333-4 Ag 28 '23
Powdered coal meets load variations in blast-furnace gas plant. diags Power 58:718-21 N 6 '23
Powdered coal used exclusively in this industrial plant; Illinois malleable iron company, Chicago. il diags Power 57:84-7 Ja 16 '23
Power problems of vital interest to executives. J. T. Beard. Ind Management 65:369-74 Je '23
Power progress during 1922. F. J. Crolius. diags Blast F & Steel Pl 11:104-9 Ja '23
Progress in pulverized fuel firing. F. J. Crolius. Blast F & Steel Pl 10:337-9 Je '22
Providence plant installs pulverized-fuel equipment. plans Power 57:680-1 My 1 '23
Pulverized coal as fuel under steam boilers. W. G. Clark. Elec R 79:929-30 D 17 '21
Pulverized-coal-burning central station, Bruay mines, France. J. Boyer. diags Mech Eng 45:183-4 Mr '23
Pulverized coal test on boilers. Blast F & Steel Pl 11:129 Ja '23
Pulverised fuel. D. L. Selby-Bigge. Iron & Steel Inst J 105:290-6 no 1 '22
Pulverized-fuel developments. A. J. T. Taylor. diag Can Eng 45:326-8 S 18 '23
Pulverized fuel for large boilers. J. C. Hobbs and L. W. Heller. Blast F & Steel Pl 11: 403-7 Jl '23; Abstract. Power 58:551 O 2 '23
Pulverized fuel for power plants. A. G. Christie. Gas Age 51:791-2 Je 23 '23; Same. Power 57:951 Je 12 '23
Pulverized fuel in Ohio; extension to Lake Shore plant. diag Elec W 82:144 Jl 21 '23
Pulverized fuel plant at Providence. diags plan Elec Ry J 61:725-7 Ap 28 '23
Pulverized waste coal efficiently burned. E: Britt. diag Elec W 80:776 O 7 '22
Regulations proposed for installation of pulverized-fuel systems. Elec W 81:697-8 Mr 24 '23
Rochester plant installs pulverized fuel burning equipment. R. D. DeWolf. diags Power 56:845-7 N 28 '22
Some pulverized-fuel installations in power plants. Power 57:837 My 29 '23
Status of pulverized fuel. L. W. W. Morrow. diags Elec W 82:525-32 S 15 '23
Steps in the use of powdered fuel. J. S. Atkinson. diags Power Pl Eng 27:1033-6 O 15 '23
Test of boiler fired with powdered coal. Elec W 81:925 Ap 21 '23
Tests of a powdered-coal plant. H: Kreisinger and others. diags U S Bur Mines Tech Pa 316:1-22 '23
Volumetric dimensions of boiler furnaces. Engineer 134:217-18 S 1 '22

Rating

Cast-iron versus steel boilers. S: R. Lewis. Heat & Ven 20:33-6 Ap '23
Percentage of boiler rating. Power 55:531-2 Ap 4 '22
See also Boilers, Heating—Rating

Repair

Brick arch prevents girth-seam troubles. R. L. Bevis. diags Power 57:990 Je 19 '23
Comments on autogenous boiler welding. C. W. Carter, jr. Ry Mech Eng 96:656 N '22
Electrical boiler scaler has flexible shaft. il Pop Mech 39:175 F '23
First steps in emergencies; what should be done in case a baffle or arch falls. Power Pl Eng 26:531 My 15 '22
Two boiler shop devices. C. E. Lester. diag Ry Mech Eng 96:657-8 N '22

Safety devices

See Boiler plants—Safety devices and measures

Settings

Accurate plumbing and heating estimates—how made. H. A. Call. Sanitary & Heat Eng 98:3-5+ Jl 14 '22
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Departure in boiler settings. M. Liptak. il Power 56:380-1 S 5 '22
Drum suspension for boilers. J. B. Crane. diags Power 58:284 Ag 21 '23
Height of boilers above floor. F. W. Dean. Power 55:130 Ja 24 '22
Large combustion chamber in rear of boiler, to which heated air is admitted, increases efficiency. A. F. Brosky. diags Coal Age 21:288-9 F 16 '22
Patching boiler settings. il Power Pl Eng 25: 1124 N 15 '21
Patching boiler settings with plastic cement. C. F. Pye. diags Power Pl Eng 26:671 Jl 1 '22
Savings that can be effected by tight boiler settings; proper baffles and reductions in furnace repairs. A. F. Brosky. il Coal Age 21:840-2 My 18 '22
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Standards

Simplification of the boiler industry. Power 56:691-2 O 31 '22

Tables, calculations, etc.

A B C of heat balance. Power 58:472 S 18 '23
Calculating the efficiency of boiler seams. R. J. Finch. diags Ry Mech Eng 96:193-6 Ap '22
Calculation of heat balances of boiler plant. C: F. Wade. Elec R (Lond) 93:309-10 Ag 31 '23
Control of boiler operation. E. A. Uehling. Mech Eng 44:438-43 Jl '22
Determination of boiler efficiency. H: B. Jones. diag Power 58:88-91 Jl 17 '23
Determination of boiler operating factors. D. C. Hess. Ry Mech Eng 97:239-41 Ap '23
Determining the pressure-drop through a boiler. L. P. Alfred. diag Power 57:768 My 15 '23
Graphic method for computing heat balance. E. A. Shorkey. charts Blast F & Steel Pl 11:348-54 Je '23
Heat balance of a boiler. Power 58:626 O 16 '23
Simplifying the heat balance. A. W. Binns. charts Power Pl Eng 26:795-800 Ag 15 '22; Discussion. 26:1162-5 D 1 '22
Tests of a large type W Stirling boiler. P. W. Thompson. diags Mech Eng 45:25-31+ Ja '23; Same cond. Power 57:128-31 Ja 23 '23
See also Steam—Tables, calculations, etc.

Testing

Accuracy of boiler tests. A. Cotton. Mech Eng 44:427-30 Jl '22; Discussion. 44:430+, 673-4; 45:69 Jl, O '22, Ja '23
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Lakeside electric power station at Milwaukee. D: Brownlie. Engineer 135:480-1 My 4 '23

Boilers—Testing—*Continued*
Reminiscences of a veteran mechanical engineer. F. W. Dean. diag Power 58:306-7 Ag 21 '23
Small plant equipped for extensive tests to check weekly performance. J. W. Geiger and H. L. Solberg. il Power 58:53-5 Jl 10 '23
Stoker firing of sawmill refuse. Power 58:616 O 16 '23
Test code for stationary steam-generating units. Mech Eng 45:548-58+ S '23
Test of boiler fired with powdered coal. Elec W 81:925 Ap 21 '23
Testing each boiler continuously. D: Brownlie. Power 58:473 S 18 '23
Tests of a magazine feed boiler, with special method of supplying secondary air. J: Blizard, J. Neil and A. Pincus. il diags Am Soc Heat & V E J 28:833-42 D '22
War department turns to fuel oil. W. W. Bowman. il diags Power 58:327-9 Ag 28 '23
See also Boiler plates—Testing; Boilers, Heating—Testing; Boilers, Marine—Testing; Boilers, Water tube—Testing

Wood firing

Boiler backfires. C: L. Ware; and others. Power Pl Eng 26:627-8 Je 15 '22
Generating power from waste. H. S. Bastian. il diags Elec W 79:373-5 F 25 '22
Novel boiler installation for burning wood refuse. C. W. Smith. diags Power Pl Eng 25:1196-7 D 15 '21
Sawdust burned with aid of steam jets. diags Power 54:914-17 D 13 '21
Shavings and refuse as a boiler fuel. E. Winholt. il diags plan Power Pl Eng 26:509-11 My 15 '22

Boilers, Heating
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Heating the average home economically. P. J. Dougherty. Am Soc Heat & V E J 28: 21-4 Ja '22
New line of heating boilers developed by the Advance boiler corporation, New York. il Heat & Ven 19:62-3 S '22
Percoplate boiler. il Heat & Ven 19:59-60 Mr '22
Smokeless boiler situation in Cleveland and Cincinnati. Heat & Ven 19:49-50 S '22
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Water returns to steam heating boilers. diag Am Soc Heat & V E J 28:338-42 Ap '22; Same cond. Power Pl Eng 26:380-1 Ap 1 '22; Same cond. Power 55:746-7 My 9 '22
Where to look for trouble on a heating boiler. L. M. Emmet. diag Dom Eng 102:608-9 Mr 31 '23

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By-product coke and other fuels for house-heating boilers. H: Kreisinger and others. U S Bur Mines Tech Pa 315:1-21, pl 1 '23; Same. Gas Age 52:283-6+ S 8 '23
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Personal equation a great factor. H. O. Andrew. il Gas Age 51:589-90 My 5 '23
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Manufacture

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Rating

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Testing

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Boilers, Locomotive. See Locomotive boilers

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Boilers, Marine—Oil firing—*Continued*
Operation of water-tube boilers in passenger and cargo ships. R. Clark. diags Mech Eng 45:438 Jl '23
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See also Marine engines

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Set fuel standard for 502-foot U. S. liners. il Marine R 53:1-3 Ja '23

Gas firing
Exhaust gas water-tube boiler. diags Engineer 135:455 Ap 27 '23

Oil firing
Automatic oil shut-off for oil-fired boilers. il Marine Eng 27:330 My '22
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Bricks—*Continued*

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Bridge approaches

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Toronto highway entrance bridges, at Hamilton. E. B. Allan. il map Can Eng 42:397-401 Ap 18 '22
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Bridge erection. See Bridges—Erection

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Bridge moving
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High viaduct moved 75 feet laterally. E: Godfrey. il Eng N 89:1034-5 D 14 '22
Moving a 740-foot steel bridge. il diags Elec Ry J 60:1007-9 D 30 '22
Santa Fe Ry. moves six bridge spans 43 ft. endwise. il Eng N 91:152-3 Jl 26 '23

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Bridgeport, Connecticut

Rapid transit
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Bridgeport, Connecticut—Rapid transit—*Cont.*
Operating income increases. Elec Ry J 60:923 D 9 '22

Sewerage

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See also Bridge design and other headings beginning Bridge; Culverts; Drawbridges; Elevated railroads; Ferry bridges; Girders; Highway administration; Highway engineering; Highway law; Hudson river bridge (proposed); Pontoon bridges; Trestles; Trusses; *also* subdivision Bridges under names of cities, e.g. New York (city)—Bridges; San Francisco—Bridges; for particular types of bridges see entries following the general subject and its subdivisions under Bridges, Arched; Bridges, Concrete; Bridges, Railroad, etc.

Abutments

Bronx river bridge abutment held by girder brackets. A. G. Hayden. il Eng N 91:112 Jl 19 '23
Modified U-type of abutment as used in Wyoming. J. F. Seiler. il diags Eng N 89: 445-6 S 14 '22
Thrust of skew barrel arch measured on laboratory model. C. T. Morris. il diags Eng N 88:638-40 Ap 20 '22

Approaches

See Bridge approaches

Cost

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Missouri river bridge in North Dakota. W. H. Robinson. Good Roads 62:261-5 My 10 '22
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See also Bridges, Concrete—Cost

Erection

Belle Isle bridge steelwork placed by floating. diags Eng N 89:149 Jl 27 '22
Bridge construction with floating steel centers. il diag Sci Am 128:38 Ja '23
Bridge thrown across river by unusual method. il Pop Mech 39:364 Mr '23
Building the Rondout Creek highway suspension bridge. W. E. Joyce and M. Bebarfald. il diags plan Eng N 89:424-8 S 14 '22
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Erection of Hurricane Gulch arch bridge in Alaska. E. G. Amesbury. il diags Eng N 88: 144-6 Ja 26 '22
Floating a bridge into place section by section. il Sci Am 128:237 Ap '23
Interesting example of bridge erection at Rock Island, Ill. il diags plans Ry R 73: 293-8 S 1 '23
Method of erection of concrete arches for new Philadelphia and Reading Ry. bridge. il Ry R 71:138-40 Jl 29 '22
New highway bridge over Batiscan river, Que. E: Holgate. il diags Can Eng 42:487-9 My 16 '22
Old suspension bridge used in erecting new arch. C. B. McCullough. il diags Eng N 89: 730-3 N 2 '22
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Special trussed falsework for concrete arch. M. Butler. il diags Eng N 89:468-9 S 21 '22
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Steel traveler on barge lightens bridge work. il Pop Mech 38:403 S '22
Telescoping tower on scow shifts arch centers. il diag plan Eng N 89:300-1 Ag 24 '22
Temporary wood truss spans gap in steel bridge. L. R. Walker. Eng N 90:678 Ap 12 '23
Twin barges with one deck as a support of a derrick. il Pop Mech 38:831 D '22

Estimates

Estimating cost of highway bridges. W. S. Todd. Eng & Contr 58:232 S 6 '22; Same cond. Can Eng 43:587 N 28 '22

Expansion bearings

Sliding bearings of Annapolis-Granville bridge. diags Eng & Contr 57:617 Je 28 '22

Failures

See Bridge failures

Finance

State aid for bridges on state highways. Eng N 91:297 Ag 23 '23

Fires

Bridge destroyed at Springfield. Elec Ry J 62:459 S 22 '23
Destructive bridge floor fire at Stevens Point, Wis. il Eng N 91:32 Jl 5 '23
Fire destroys old wooden bridge at Stockton, N.J. C: A. Mead. il diags Eng N 91: 272 Ag 16 '23
North End bridge in Springfield destroyed by fire. Eng N 91:449 S 13 '23
Railway bridges damaged in two unusual fires. Eng N 91:33 Jl 5 '23

See also Bridges—Floors

Bridges—*Continued*

Floors

American rubber pavement would save Harvard bridge. il India Rubber W 68:416-17 Ap '23

Fire prevention in timber floors of highway bridges. diag Eng N 89:796-7 N 9 '22; Same. Can Eng 43:624-5 D 12 '22; Same. Eng & Contr (R & S) 58:178-81 D 6 '22; Same. Good Roads 64:20-1 Ja 10 '23; Same cond. Pub Works 53:228-9 N '22

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Surfacing driveway of Victoria bridge. I. H. Parker. il Can Eng 43:125-7 Jl 11 '22

Weight of bridge floors reduced by use of drums. diags Eng & Contr 57:169 F 22 '22

Foundations and piers

Air bell proves economical for completing excavation and concreting for bridge pier. Eng & Contr 58:276 S 20 '22; Same. Am Soc C E Pro 48:816-19 Ap '22

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Caissons en béton armé, pour fondations à l'air comprimé. J. E. Ribera. diags plans Génie Civil 80:318-20 Ap 8 '22

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Experience in treating bridge timber on the Santa Fe. A. F. Robinson. Eng N 88:611-12 Ap 13 '22

Experiences in pneumatic caisson sinking in Mexico. T. Hind. il diags plans Eng N 87: 848-52 N 24 '21

Fitting timber crib to rough rock foundation. M. E. Chamberlin. Eng & Contr (Bldgs) 58: 50 O 25 '22

High piers of railway viaduct braced by trusses of main span. diags plan Eng N 89:432-3 S 14 '22

Johnson street bascule bridge, Victoria, B.C. J. B. Holdcroft. il Can Eng 43:247-8 Ag 15 '22

Main piers of the bridge over the Delaware river, between Philadelphia and Camden. C. E. Chase. il diags J Fr Inst 196:593-625 N '23

Massive construction in anchorages and towers features Columbus bridge. R. C. Cheney. il diags Eng N 89:802-3 N 9 '22

Missouri river bridge in North Dakota. W. H. Robinson. Good Roads 62:261-5 My 10 '22

Nouveau procédé de fondations sous l'eau, applicable aux grandes profondeurs. A. P. Bœuf. diags plans Génie Civil 81:15-16 Jl 1 '22

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Pier construction, Wells St. bridge. il Pub Works 53:174-6 O '22

Piers and abutments of the Springfield bridge. il Pub Works 52:417-19 Je 10 '22

Reinforcing for 65-ft. cylinder pier placed as unit. il Eng N 88:31 Ja 5 '22

Repair of defective bridge piers cracked by expansion. L. G. Smith. diags Eng N 90: 1081 Je 21 '23

Rigolets bridge built to stand hurricanes: L. & N.R.R. il diags plan Eng N 91:626-30 O 18 '23

Rock borings for highway bridge piers made with well drilling machine. N. H. Meriwether. il Eng & Contr 58:221-2 S 6 '22

Shifting of bridge pier stopped after 35 years. M. F. Clements. diags map Ry Age 72:1333-6 Je 10 '22

South street, Philadelphia, bridge piers. il Pub Works 53:84-6 Jl 29 '22

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Wrapping concrete bridge abutments in an asphalt blanket. J. F. Seiler. Munic Eng 64: 135-6 Ap '23

See also Caissons; Cofferdams; Piles and pile driving

Inspection

See Bridge inspection

Lighting

Great western gateway at Schenectady, N.Y. to have illumination system of great beauty and exceptional efficiency. il Am Inst E E J 42:346 Ap '23

Load

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Arched bridges of wide span. F. von Emperger. il diags Eng & Contr 57:519-24 My 31 '22

Basis of calculations for loading of Delaware river bridge. R. Modjeski. Eng & Contr 57: 276 Mr 22 '22

Bridge impact tests and allowances. H. J. Fereday. Eng & Contr 57:316-17 Mr 29 '22

British tests on railway bridges in respect of impact effect. C. Gribble. Eng & Contr 56: 513-15 N 30 '21

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Equivalent loads on bridges. P. H. Parr. Engineer 135:411-12 Ap 20 '23

Indeterminate structures mechanically analyzed. G: E. Beggs. diags Eng & Contr 57: 497-501 My 24 '22

Locomotive loadings for railway bridges. D. B. Steinman. Am Soc C E Pro 48:1043-73, pl 11-19 My '22; Same cond. Can Eng 43: 315-20 S 5 '22; Abstract. Eng & Contr 58: 175-8 Ag 23 '22; Abstract. Engineering 114: 242 Ag 25 '22; Discussion. Am Soc C E Pro 48:1675-1704, 1789-1806, 1901-7; 49:131-6, 952-83 O '22-Ja, My '23; Eng N 89:447-9, 577-8 S 14, O 5 '22; Can Eng 44:203-6, 239-40 F 6-13 '23

Model analysis of indeterminate structures. G: E. Beggs. diags Eng & Contr (Bldgs) 59:745-9 Mr 28 '23

Proposed loading for highway bridges. H. D. Hussey. diag Am Soc C E Pro 49:1031-7 Ag '23; Same. Eng & Contr (Bldgs) 60:363-7 Ag 22 '23; Discussion. Am Soc C E Pro 49:1901-13 N '23

Bridges—Load—*Continued*
Strength of railway bridges. A. C. Cookson and J. S. Nicholas. diags Engineering 114: 293-6 S 8 '22; Discussion. 114:336-7, 363-4, 407-8, 469-70 S 15-29, O 13 '22; Engineer 134:278 S 15 '22
Strength of railway bridges. J. S. Wilson. Engineering 114:350; Discussion. 336-7 S 15 '22; Discussion. Engineer 134:278 S 15 '22
Strength of railway bridges; editorial. Eng & Contr 58:3-4 N 29 '22
Strengthening old bridges. L: E. Moore. diags Boston Soc C E J 9:223-33 N '22; Same. Eng & Contr (Bldgs) 59:225-9 Ja 24 '23; Discussion. B. W. Guppy. Boston Soc C E J 9:233-6 N '22; Same. Eng & Contr (Bldgs) 59:209-10 Ja 24 '23
Suldbach railway bridge tests. diags Eng & Contr 59.283-9 Ja 31 '23
Suldbach tests: a Swiss study of bridge action. il diags Eng N 87:982-5 D 15 '21
When a bridge tells its troubles; a new and ingenious device for measuring the effect of traffic on bridges. E. B. Smith. il diag Sci Am 129:24 Jl '23

Maintenance and repair

Arch added to bridge over the Niagara Gorge as traffic continues. il Pop Mech 40:745 N '23
Carrying heavy loads over an old wooden bridge. E. C. Seibert. il diags Eng N 91: 441 S 13 '23
Maintenance methods for highway bridges in Minnesota. E. J. Miller. Eng & Contr 57: 618-19 Je 28 '22
Old piers renewed under adverse conditions. il diags Ry R 73:259-64 Ag 25 '23
Repairing the rolling parts of two bascule bridges. J. B. Huntley. il diags Eng N 88: 414-17 Mr 9 '22
Replacing roller bearings and bed plates under bridge spans. A. A. Blaeser. il diags Eng N 89:302-3 Ag 24 '22
Shifting of bridge pier stopped after 35 years. M. F. Clements. diags map Ry Age 72:1333-6 Je 10 '22
Strengthening of the floor, &c., of the Forth bridge. W: A. Fraser. Engineer 134:633-4 D 15 '22; Same. Engineering 114:719 D 8 '22; Same. Can Eng 44:173-4 Ja 23 '23; Same. Eng & Contr 59:260-1 Ja 31 '23; Abstract. Eng N 90:160 Ja 25 '23
Strengthening old bridges. L: E. Moore. diags Boston Soc C E J 9:223-33 N '22; Same. Eng & Contr (Bldgs) 59:225-9 Ja 24 '23; Abstract. Can Eng 44:512 My 22 '23; Discussion. B. W. Guppy. Boston Soc C E J 9:233-6 N '22; Same. Eng & Contr (Bldgs) 59:209-10 Ja 24 '23
Strengthening the Trisanna bridge. il Engineer 135:588 Je 1 '23; Same. Eng & Contr (Bldgs) 59:1418-19 Je 27 '23
Strengthening truss bridge over tracks at Chicago. il diags Eng N 89:621-3 O 12 '22
Tightening tension bars of a bridge by heating and upsetting. W: J. Titus. il diag Eng N 90:550-1 Mr 22 '23; Discussion. 90:801-2 My 3 '23
Timber struts under compression take arch thrust during bridge repair. F. M. Hall. il Eng N 88:794-5 My 11 '22

See also Bridge painting; Bridges—Reconstruction; Bridges, Concrete—Maintenance and repair

Protection

Bridge protected from shifting channel; B. & O. R. R. il diags Eng N 89:884-5 N 23 '22
Weatherproofing Hudson river bridge. Can Eng 42:518 My 23 '22

See also Bridge painting; Bridges, Concrete—Protection; Bridges, Iron and steel—Protection

Rapid construction

Electric railway bridge at Holyoke, Mass., built in eleven hours. il diags Elec Ry J 59: 712-13 Ap 29 '22; Same. Eng & Contr 57:593 Je 21 '22
Speed in reconstruction of a highway bridge. D. B. Luten. il Munic Eng 62:95-7 Mr '22

Reconstruction

Building a bridge within a bridge; a plan for strengthening the Brooklyn bridge and enlarging its carrying capacity. G. Lindenthal. il Sci Am 127:226-8 O '22
Building concrete bridge around an old steel bridge. S. B. Slack. il diags plan Eng N 89: 870-2 N 23 '22
Check bridge reinforcement with strain gage. H. S. Loeffler. il diags Ry Age 74:1157-9 My 12 '23
Electrical equipment speeds up bridge construction at Lynn. il Elec R 79:842 D 3 '21
Handling traffic on Chicago "L" during bridge replacement. il map Elec Ry J 58:1113-15 D 24 '21
Highway bridge reconstruction policy in Pennsylvania. Munic Eng 63:197 N '22
Illinois Central to rebuild Ohio river bridge. diags Ry Age 71:1214-15 D 17 '21
Ingenious methods employed on highway bridge reconstruction at Milport, Indiana. Munic Eng 63:58 Ag '22
Lengthening bridge after caving of bank in flood. B. H. Faber. il Eng N 90:703 Ap 19 '23
New bridge constructed on old structure at Troy, O. diags Eng & Contr (Bldgs) 59: 506-9 F 28 '23; Same. Concrete 23:145-7 O '23; Same cond. Eng N 90:654-6 Ap 12 '23
Old steel arch utilized in new reinforced concrete structure. C: F. Bornefeld. il diags Concrete 23:102-6 S '23
Railroad bridge widened and reinforced. G. H. Wilsey. diag Eng N 90:796 My 3 '23
Rebuilding Tournelle bridge as flood protection measure in Seine river. diags Eng N 91:673 O 25 '23
Reconstruction of Sixteenth street viaduct in Denver. E. Eaves. il diags Eng N 91:750-3 N 8 '23
Reconstruction of the Baltimore and Ohio railroad bridge crossing the Allegheny river, at Pittsburgh, Pennsylvania. P. G: Lang, jr. il map Am Soc C E Pro 48:809-33, pl 10 Ap '22
Steel and wrought-iron trusses efficiently combined in railway bridge reconstruction. il diags plans Eng N 89:973-8 D 7 '22
Trolley deck of Manhattan bridge converted to roadway. diags Eng N 88:1087 Je 29 '22
Wells street bridge. T: Pihlfeldt. W Soc E J 27:59-61; Discussion. 61-4 F '22

See also Bridges—Maintenance and repair

Specifications

British standard specification for girder bridges. 37p British eng. stand. assn., London '22

See also Bridges, Iron and steel—Specifications

Standards

Standard bridge practice of the Michigan state highway department. C. A. Melick. il diags plan Concrete 23:2-10, 69-74 Jl-Ag '23; Same cond. Eng & Contr (B'dgs) 59: 1183-90 My 23 '23; Same cond. Can Eng 45:369-73 O 2 '23

State aid

See Bridges—Finance

Stresses

Accurate recording gauge; Fereday-Palmer stress recorder employed in determining actual stresses in bridge members. Can Eng 45:414 O 16 '23
Stresses in bridges. J. S. Wilson and B. P. Haigh. Engineering 116:411-13, 446-8 S 28-O 5 '23; Abstract. Engineer 136:333 S 28 '23; Discussion. Engineering 116:388 S 28 '23
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See also Bridges—Load

Testing

Actual stresses in British impact tests. P. L. Pratley. Eng N 87:1073-4 D 29 '21

Bridges—Testing—*Continued*
English impact measurements analyzed. F. E. Turneaure. Eng N 88:104-6 Ja 19 '22
Progress report of the special committee on impact in highway bridges. il diags Am Soc C E Pro 49:457-87 Mr '23
Suldbach railway bridge tests. diags Eng & Contr 59:283-9 Ja 31 '23
Suldbach tests: a Swiss study of bridge action. il diags Eng N 87:982-5 D 15 '21
When a bridge tells its troubles; a new and ingenious device for measuring the effect of traffic on bridges. E. B. Smith. il diag Sci Am 129:24 Jl '23

See also Bridges, Arched—Testing; Bridges, Concrete—Testing; Bridges, Railroad—Testing

Vibration

Forced vibrations of bridges. S. P. Timoshenko. Philos Mag 6th ser 43:1018-19 My '22

Wrecking

Bridge boosting—a new job for dynamite. H. S. Arbo. il Pop Mech 38:11-13 Jl '22
Removal of old Broadway bridge, St Boniface. G. P. Morse. il Can Eng 44:541 My 29 '23

Bridges, Arched
Arch problems in the Palm Beach failure. Eng N 88:292-3 F 16 '22
Arched bridges of wide span. F. von Emperger. il diags Eng & Contr 57:519-24 My 31 '22
Boldly designed center for heavy concrete arch of Beechwood avenue bridge in Pittsburgh. il diags Eng N 89:655-7 O 19 '22
Bridge construction with floating steel centers. il diag Sci Am 128:38 Ja '23
Building a rib-arch concrete bridge in Arkansas. C. A. Prokes. il diags Eng N 88: 306-9 F 23 '22
Concrete arch bridges with partially fixed ends. R. N. Stroyer. diags Eng & Contr 58:301 S 27 '22
Constructing arch ribs of Springfield bridge. il Pub Works 53:8-10 Jl 1 '22
Design and construction of six-span reinforced concrete highway bridge crossing Wabash river at Attica, Indiana. H. A. Hanapel. il Munic Eng 63:37-44 Ag '22; Same cond. Good Roads 63:29-32 Jl 26 '22
Design of 400-ft. concrete arch of the Cappelen memorial bridge. il diags Eng N 90: 148-52 Ja 25 '23
Erection of Hurricane Gulch arch bridge in Alaska. E. G. Amesbury. il diags Eng N 88:144-6 Ja 26 '22
Erection of Hurricane Gulch arch bridge on Alaska government railway. il Ry R 70:638-40 My 6 '22
High level concrete bridge, Elora, Ont. A. W. Connor. il Can Eng 42:517-18 My 23 '22
Hill-to-hill bridge in Bethlehem, Pa. F. W. Skinner. il diags plans Pub Works 54:233-6, 251-3, 299-301 Jl-S '23
Hillhurst bridge, Calgary. J: F. Greene. il Can Eng 42:499 My 16 '22
Large steel arch bridge ribs encased in gunite. C. B. McCullough. diags plan Eng N 88:942-5 Je 8 '22; Discussion. R. W. Lincoln. 89:161 Jl 27 '22
Long-span steel arch bridge over Niagara gorge for Michigan Central railroad. il diags plans Eng N 90:380-6 Mr 1 '23
Maryland street concrete arch bridge, Winnipeg. J. F. Greene. il diag Can Eng 42:339-42 Mr 28 '22; Same. Eng N 88:608-11 Ap 13 '22; Same. Eng & Contr 57:398-401 Ap 26 '22
Michigan Central to build new bridge at Niagara. il diags Ry Age 74:176-80 Ja 13 '23; Ry R 71:887-91 D 23 '22
Model analysis of indeterminate structures. G: E. Beggs. diags Eng & Contr (Bldgs) 59:745-9 Mr 28 '23
New bridge at Muskham on the Great North road. il plan Engineer 135:313-14, 316 Mr 23 '23
Old suspension bridge used in erecting new arch. C. B. McCullough. il diags Eng N 89: 730-3 N 2 '22
Philadelphia & Reading builds 46-arch bridge. C: H. Hitchcock. il diag Ry Age 73:1035-8 D 2 '22
Pont-rails métallique sur l'Isorno (ligne de Locarno à Domodossola, en Lombardie). diags plan Génie Civil 80:160-1 F 18 '22
Porto Rican concrete arch bridge has novel spandrels. diags Eng N 89:981 D 7 '22
Procédé de construction, sans cintres, des grands arcs en béton armé. C: Dantin. diags plan Génie Civil 80:37-41 Ja 14 '22
Reinforced concrete bridge at Brantford, Ont. F. P. Adams. il diag Can Eng 44:179-80 Ja 30 '23
Some features of the Chemung river concrete bridge. il diags plan Eng N 88:188-92 F 2 '22
Steel rib reinforcement used for concrete arch centers in bridge across Connecticut river at Springfield, Mass. il diags plans Eng N 88:514-19 Mr 30 '22
Steel traveler on barge lightens bridge work. il Pop Mech 38:403 S '22
Telescoping tower on scow shifts arch centers. il diag plan Eng N 89:300-1 Ag 24 '22
Thrust of skew barrel arch measured on laboratory model. C. T. Morris. il diags Eng N 88:638-40 Ap 20 '22; Discussion. 88:968-9; 89:625 Je 8, O 12 '22
Timber struts under compression take arch thrust during bridge repair. F. M. Hall. il Eng N 88:794-5 My 11 '22

Testing

Measuring skew-arch strains and stresses. il Pop Mech 39:77 Ja '23
Testing for better skew-arch bridges. il Good Roads 63:149 O 25 '22; Same. Eng & Contr (R & S) 58:87-8 N 1 '22; Same. Concrete 21: 184-5 D '22

Bridges, Bamboo
Bridge built of bamboo spans river in Japan. il Pop Mech 40:764 N '23

Bridges, Bascule
American bascule bridge for Tientsin, China. il Pop Mech 39:4 Ja '23
Bascule bridge at Mystic, Conn., of new type and its construction. T: E. Brown, jr. and W: G. Grove. il diags plan Eng N 91:374-7 S 6 '23
Bascule bridge controlled by moving counterweight. il Pop Mech 38:880 D '22
Bascule bridge overbalanced by careless handling. Eng N 87:978 D 15 '21
Bascule highway bridge, Port Dover, Ontario. E. H. Darling. il diags plan Can Eng 43: 295-7 Ag 29 '22
Chicago double-deck drawbridge with elevated railway. il diags plans Eng N 88:567-71 Ap 6 '22
Clever engineering seen in opening new bridge. il Pop Mech 37:191 F '22
Constructing Prairie du Sac highway bridge. il diags Pub Works 52:311-13 My 6 '22
Electrically controlled bascule bridge. il Electrician 88:471-2 Ap 21 '22
Failure of St Mary's bascule bridge. A: Kuhlmann. il diag Sci Am 126:197 Mr '22
Footbridge with bascule draw. P. J. Searles. il Eng N 90:680 Ap 12 '23
New development in bascule bridge design. diag Eng & Contr 57:283 Mr 22 '22
New highway bridge over Batiscan river, Que. E: Holgate. il diags Can Eng 42:487-9 My 16 '22
New steel roller single bascule bridge, Norwich. il diags Engineer 136:424, 428-30 O 19 '23
New type of bascule bridge. diag Can Eng 43:309 Ag 29 '22
New type of trunnion bascule bridge; Wabash Ry. il diags Eng N 88:363-4 Mr 2 '22; Ry Age 72:414-15 F 18 '22
Pier construction, Wells St. bridge. il Pub Works 53:174-6 O '22
Pont basculant en arc à deux travées, à Caorle (Vénétie). diags plan Génie Civil 81: 143 Ag 5 '22
Ponts basculants sur l'Oise, à Chauny, et sur le canal de la Haute-Deule, près de Douai. il diags plan Génie Civil 83:189-91 S 29 '23
Repairing the rolling parts of two bascule bridges. J. B. Huntley. il diags Eng N 88: 414-17 Mr 9 '22
Strauss bascule bridge, Burlington, Ont. J: A. McFarlane. il Can Eng 45:161-4 Jl 24 '23

Bridges, Bascule—*Continued*
Superstructure of Johnson street bridge, Victoria. F. H. Allwood. il Can Eng 43:611-13 D 12 '22
Track and wiring on large bridge across the Housatonic river. il diags plans Elec Ry J 59:587-91 Ap 8 '22
Two bridges in one—Chicago's Michigan avenue bridge. W: A. Mulcahy. il Sci Am 128:16 Ja '23
Wells street bridge. T: Pihlfeldt. W Soc E J 27:59-61; Discussion. 61-4 F '22

Bridges, Cantilever
Cantilever bridge of concrete. P. M. Henry. il diags Eng N 91:191 Ag 2 '23
Cantilever bridge to span Hugli river in India. il Pop Mech 38:507 O '22
Cantilever highway bridge across the Ohio at Ironton. J. F. Jackson. il diags Eng N 90: 954-8 My 31 '23
New cantilever bridge across St John river. il diags Can Eng 43:591-3 D 5 '22
New cantilever bridge replaces famous old span. il Ry Age 72:1175-6 My 20 '22
New 640-ft. arch span bridge at Niagara Falls. H. Ibsen. diags Can Eng 44:139-42 Ja 16 '23
New 3,800 foot bridge at Sydney Harbor. diag Eng & Contr 57:295 Mr 29 '22
Proposed cantilever bridge at Sydney, New South Wales. diags plans Engineering 112: 880-3 D 30 '21
Report on Calcutta bridge proposes 1,500-ft. cantilever structure. Eng N 89:72 Jl 13 '22
Second railway cantilever bridge over reversing falls. il Eng N 88:527 Mr. 30 '22
Sydney Harbor bridge. P. J. Risdon. il Sci Am 127:180-1+ S '22
Sydney Harbor cantilever bridge design. Eng N 88:78 Ja 12 '22

Bridges, Concrete
Arch problems in the Palm Beach failure. Eng N 88:292-3 F 16 '22
Le béton armé et le ciment fondu; construction des ouvrages en béton armé à grande portée. H: Lossier. il diags Génie Civil 80: 79-83, pl 3 Ja 28 '22
Boldly designed center for heavy concrete arch of Beechwood avenue bridge in Pittsburgh. il diags Eng N 89:655-7 O 19 '22
Bridge slabs waterproofed before erection. H. B. Glisson. il diags Ry Age 72:873-5 Ap 8 '22
Bridge with a thousand spans between Tampa and St Petersburg. F. W. Wilson. il Pop Mech 39:502-4 Ap '23
Building a five-span concrete bridge in cold weather. G. F. Scales. il Eng N 89:563 O 5 '22
Building a rib-arch concrete bridge in Arkansas. C. A. Prokes. il diags Eng N 88:306-9 F 23 '22
Building concrete bridge around an old steel bridge. S. B. Slack. il diags plan Eng N 89: 870-2 N 23 '22
Canada's greatest concrete bridge over the Otonabee River, Peterborough. F. Barber. il diag Eng & Contr 57:489-90 My 24 '22
Cantilever bridge of concrete. P. M. Henry. il diags Eng N 91:191 Ag 2 '23
Collapse of Palm Beach concrete arch bridge. il Eng N 88:148-50 Ja 26 '22
Completion of a notable concrete viaduct. il Sci Am 128:99 F '23
Concrete arch bridge with double decks at Watertown, N.Y. il diags Concrete 23:58 Ag '23; Same. Eng & Contr (Bldgs) 60:153-4 Jl 25 '23
Concrete arch bridges with partially fixed ends. R. N. Stroyer. diags Eng & Contr 58: 301 S 27 '22
Concrete as a bridge building material. W. Marriott. Can Eng 44:248 F 20 '23; Same. Good Roads 64:169 My 2 '23
Concrete bridge construction in winter. N. M. Stineman. il Eng & Contr 56:585-6 D 28 '21
Concrete bridge dedicated to service men. il Pop Mech 38:525 O '22
Concrete bridge has interesting ornamental features. J: F. McClarren. il Concrete 21: 178-80 D '22
Concrete bridges and culverts. W. J. Moore. Can Eng 42:291-2 Mr 7 '22
Concrete continuous-truss bridge without diagonals. diags Eng N 89:926 N 30 '22
Concrete memorial bridge at Wilmington, Del. has attractive appearance. il Eng N 91:96-7 Jl 19 '23
Constructing arch ribs of Springfield bridge. il Pub Works 53:8-10 Jl 1 '22
Construction of a pre-cast concrete slab bridge at Central street, Lowell. S. S. Kent. il Boston Soc C E J 9:213-22 N '22; Same. Eng & Contr (Bldgs) 58:65-71 N 22 '22
Continuous frame design used for concrete highway bridges. A. G. Hayden. il diags plans Eng N 90:73-5 Ja 11 '23
Cumming's bridge across Rideau river, Ottawa. G. R. Dale. Can Eng 43:205-6 Ag 1 '22
Design and construction of six-span reinforced concrete highway bridge crossing Wabash river at Attica, Indiana. H. A. Hanapel. il Munic Eng 63:37-44 Ag '22; Same cond. Good Roads 63:29-32 Jl 26 '22
Design of 400-ft. concrete arch of the Cappelen memorial bridge. il diags Eng N 90: 148-52 Ja 25 '23
Distribute bridge concrete in unusual way. il Pop Mech 39:768 My '23
Economical use of concrete in bridge construction. L. G. Holleran. il diags plans Eng & Contr (Bldgs) 59:923-7 Ap 25 '23
Expansion and construction joints in concrete highway bridges. A. B. Cohen. Eng & Contr 57:614-15 Je 28 '22; Same. Can Eng 43:307 Ag 29 '22; Same. Good Roads 63:68+ Ag 23 '22
Expansion and overturning causes damage to concrete bridge. H. H. Edwards. il diags Eng N 88:701-2 Ap 27 '22; Same. Concrete 21:29-30 Jl '22
Expansion details for concrete bridge railing. O. W. Gatchell. il diag Eng N 91:520 S 27 '23
Fountain county's bridge over the Wabash river at Attica, Indiana. il Eng & Contr 58: 299 S 27 '22
Georgetown bridge over the Potomac. il Sci Am 128:309 My '23
High level concrete bridge, Elora, Ont. A. W. Connor. il Can Eng 42:517-18 My 23 '22
Highway bridges over spillways of dams of Miami conservancy district. il diags Eng & Contr 57:393-4 Ap 26 '22
Hill-to-hill bridge in Bethlehem, Pa. F. W. Skinner. il diags plans Pub Works 54:233-6, 251-3, 299-301 Jl-S '23
Hillhurst bridge, Calgary. J: F. Greene. il Can Eng 42:499 My 16 '22
Independent floor-beams and slab in new concrete arch bridge. diags Eng N 88:29 Ja 5 '22
Long span reinforced concrete girder bridge at Cohasset Narrows. B. A. Rich. il diags Boston Soc C E J 9:237-47 N '22; Same. Eng & Contr (Bldgs) 59:211-16 Ja 24 '23
Maryland street concrete arch bridge, Winnipeg. J. F. Greene. il diag Can Eng 42:339-42 Mr 28 '22; Same. Eng N 88:608-11 Ap 13 '22; Same. Eng & Contr 57:398-401 Ap 26 '22
Method of erection of concrete arches for new Philadelphia and Reading Ry. bridge. il Ry R 71:138-40 Jl 29 '22
Nashville concrete bridges show serious deterioration. il diags Eng N 87:934-8 D 8 '21
New bridge at Muskham on the Great North road. il plan Engineer 135:313-14, 316 Mr 23 '23
New bridge constructed on old structure at Troy, O. diags Eng & Contr (Bldgs) 59:506-9 F 28 '23; Same. Concrete 23:145-7 O '23; Same cond. Eng N 90:654-6 Ap 12 '23
New concrete bridge in Southwest; Oklahoma-Arkansas bridge crossing the Arkansas river at Fort Smith, Ark. il Good Roads 63:21-2 Jl 19 '22
New street viaduct at Dover, England. il diags Engineering 113:251-5, 264, 284-5, pl 15 Mr 3-10 '22; Excerpts. Eng & Contr 57: 513-14 My 31 '22
New type of concrete truss bridge. diags Engineer 133:436, 442 Ap 21 '22
North Avenue viaduct, Milwaukee. il diags Pub Works 52:97-100, 277-80, 303 F 11, Ap 22-29 '22

Bridges, Concrete—*Continued*
North Hill viaduct, Akron, Ohio, completed. D. M. Taylor. il diags map plans Ry R 71: 700-4 N 18 '22
Old steel arch utilized in new reinforced concrete structure. C: F. Bornefeld. il diags Concrete 23:102-6 S '23
Ornamental memorial highway bridge over Wisconsin river at Sauk City, Wis. W. C. Buetow. il Munic Eng 65:107-9 S '23
Pont en béton armé, à Castelnaudary (Aude). P. Thomann. il diags plans Génie Civil 81: 217-18 S 2 '22
Pont-rails en béton armé, avec piles-pendules, construit aux aciéries de la marine, à Saint-Chamond (Loire). E. Gardiol. il Génie Civil 81:405-8, pl 10 N 4 '22; Abstract. Eng N 89: 1029 D 14 '22
Pont-route de Randan (Puy-de-Dôme), à poutres droites sans triangulation. diags Génie Civil 81:447 N 11 '22
Porto Rican concrete arch bridge has novel spandrels. diags Eng N 89:981 D 7 '22
Procédé de construction, sans cintres, des grands arcs en béton armé. C: Dantin. diags plan Génie Civil 80:37-41 Ja 14 '22
Rapid highway bridge work. H. D. Williar, jr. il Pub Works 51:446-7 D 10 '21
Reinforced concrete bridge across the Thames at Reading. il plan Engineering 116:385-6, 400, pl 22 S 28 '23
Reinforced concrete bridge at Brantford, Ont. F. P. Adams. il diag Can Eng 44:179-80 Ja 30 '23
Reinforced concrete bridge over the river Pambayaur at Chengannur. il diags plans Engineer 134:410-12 O 20 '22
Reinforced concrete bridge over the River Vesubie. W. L. Scott. Engineering 116:70-1, pl 5-7 Jl 20 '23
Reinforced-concrete overbridge at Neepsend, Sheffield. il diags plans Engineering 115:514-17, 526 Ap 27 '23
Reinforced concrete overhead bridge Pittsburgh & Shawmut R. R. il Ry R 71:375-6 S 16 '22
Reinforcement for bridge assembled on barges. il Pop Mech 38:710-11 N '22
Remarkable concrete bridge at Villeneuve, Southern France. R. Fischer. il diags Concrete 21:63 Ag '22
La répartition des charges entre les poutres dans les ponts en béton armé. M. Thullie. Génie Civil 81:174-8 Ag 19 '22
Report of committee S-2, on reinforced-concrete highway bridges and culverts. il diags Am Concrete Inst Pro 18:230-42 '22
Semi-removable centers for concrete bridge arches. H. G. Peterson. diags Eng N 89: 142-3 Jl 27 '22
Solve complicated river crossing with double-deck bridge. E. H. Harder. il diags plan Eng N 91:542-5 O 4 '23
Some features of the Chemung river concrete bridge. il diags plan Eng N 88:188-92 F 2 '22
Some recent British concrete bridges. F. Johnstone-Taylor. diags Concrete 23:26-7 Jl '23
Special concrete specified for Jamaica Bay viaduct. diags map Eng N 88:244-7 F 9 '22
Special form work for Black street bridge, Hamilton, O. il diags Eng & Contr 58:173-5 Ag 23 '22
Special trussed falsework for concrete arch. M. Butler. il diags Eng N 89:468-9 S 21 '22
Speed in reconstruction of a highway bridge. D. B. Luten. il Munic Eng 62:95-7 Mr '22
Springfield-West Springfield bridge. il diags plan Pub Works 52:365-8, 384-6 My 20-27 '22
Standard concrete highway bridges and culverts. A. C. Irwin. diags Am Concrete Inst Pro 17:90-111 '21
Steel rib reinforcement used for concrete arch centers in bridge across Connecticut river at Springfield, Mass. il diags plans Eng N 88:514-19 Mr 30 '22
Strength specifications used for large concrete bridge. J. B. Huntley. il diags plan Eng N 91:586-90 O 11 '23
Substructure of Edmundston-Madawaska bridge. G. M. Steeves. il diags Can Eng 42: 545-9 My 30 '22; Same abr. Eng & Contr (Bldgs) 58:123-7 D 27 '22
300-ft. span plain concrete bridge over the River Lot at Villeneuve, France. il Eng & Contr (Bldgs) 58:133 D 27 '22
307 ft. span concrete bridge on Danish state railways. il diags Eng & Contr 58:210 Ag 30 '22
Three ways to build bridges in winter. il Concrete 23:142-3 O '23
Track elevation at Aurora, Illinois. il map plan Ry R 73:191-8 Ag 11 '23
Track elevation on long concrete viaduct at Aurora, Ill. il diags map plan Eng N 89: 1056-9 D 21 '22
Traveling tower places bridge concrete. A. E. Whillock. il diag Concrete 22:228-30 Je '23
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See Bridge painting

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Bridges, Ferry. See Ferry bridges

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Car tippers. See Dumping appliances

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Coal carbonization. See Coal distillation

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Work longwall by machine loaders as long as roof will stand, then shift to more costly room-and-pillar plan. M. R. Martin. il diags plans Coal Age 22:745-8 N 9 '22; Same. Ind Management (Lond) 9:87-9 F 8 '23
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See also Coal breakers; Coal crushers; Coal cutters; Coal dust; Coal handling; Coal lands; Coal miners; Coal mining machinery; Coal storage; Coal washing; Hydraulic mine filling; Mine gases as fuel; Mining engineering

Accidents and explosions

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See Fans, Mine; Mine ventilation

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See also Coal miners—Ruhr valley

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See also Coal miners—West Virginia

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See Concrete construction—Fire resistance

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See Concrete construction—Tables, calculations, etc.

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Park stoves. diags Concrete 20:267 Je '22

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Testing
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Swinging damper reduces air leakage at rear of chain-grate stokers. J: J. Monaghan. diags Power 56:947-8 D 12 '22

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For and against a small dam. C. W. Stuart; G. Dixon. Eng N 88:206 F 2 '22
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Geology and the Decatur dam and reservoir project. M. M. Leighton. diag map Eng N 91:264-6 Ag 16 '23
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Progress on flood prevention at Phoenix, Ariz. map Eng N 88:162 Ja 26 '22
Progress on the Wanaque project. il Pub Works 54:149-53, 191-4 My-Je '23
Pumping sand with hydraulic elevator on dam construction work. il Eng N 89:899 N 23 '22
Rapid construction of earth-fill dam in California. C: H. Richards. il diags plan Eng N 91:340-3 Ag 30 '23
Reclamation service building highest earth dam. il plans Eng N 87:89-1 D 1 '21
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Scituate dam of Providence water supply. F. E. Winsor. il Eng & Contr (W W) 58:65-72 N 8 '22
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Tentative plan for the construction of a 780-foot rock-fill dam, on the Colorado river, at Lees Ferry, Arizona. E. C. La Rue. il diag map plan Am Soc C E Pro 48:835-52 Ap '22; Discussion. 48:1605-36, 1711-15, 1909-12; 49:942-51 S-O, D '22, My '23
To investigate arch dams. Eng N 91:755 N 8 '23
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Travaux publics; barrage à voûtes multiples, sur le Tirso, à San Chiara d'Ula (Sardaigne). P. Caufourier. il diags map Génie Civil 81:77-82, pl 4 Jl 22 '22
Two small dams good examples of amateur engineering. diags Eng N 87:1018-19 D 22 '21
Les vannes automatiques à secteurs du barrage de San Chiara d'Ula, sur le Tirso (Sardaigne). diags plan Génie Civil 81:326-7 O 7 '22

Dams—*Continued*
Water supply and irrigation works. Wichita Falls, Tex. A. S. Fry. map Eng N 90:1080-1 Je 21 '23
Water-works dam at Oklahoma City, withstands record flood. V. V. Long; S. W. Stewart. il map Eng N 91:724-6 N 1 '23
Which is the highest dam in the world? E: Wegmann. Eng N 89:758 N 2 '22

See also Barrages; Cofferdams; Dikes (engineering); Embankments; Hetch Hetchy water supply project; Hydroelectric plants; Irrigation; Reservoirs; Spillways; Weirs (dams)

Failures

Critical tests for earth dams, with or without cores C. S. Jarvis. il Eng N 91:731-2 N 1 '23
Failure of Apishapa earth dam in southern Colorado, J: E. Field, B. M. Jones and O. N. Floyd. il diags Eng N 91:357-8, 418-24 Ag 30, S 13 '23; Discussion. 91:447, 568, 817, 900-2 S 13, O 4, N 15, 29 '23
Failure of two small dams. Eng N 90:788 My 3 '23
Small dam failure wrecks large residence section. C. A. Latimer. il Eng N 89:121-2 Jl 20 '22

Foundations

Floating concrete dam built on the Gila river; porous foundations require spread footings for low diversion dam. C. J. Blanchard. il diags plan Eng N 89:824-8 N 16 '22
Floating concrete slabs as a dam foundation. Pop Mech 39:212 F '23
Hetch Hetchy dam excavation. il Pub Works 53:43-5 Jl 15 '22
How should we figure foundation pressures in a multiple-arch dam? diag Eng N 88:623-4, 1009-10; 89:78-9, 450-1 Ap 13, Je 15, Jl 13, S 14 '22
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Models

Experiments with models of the Gilboa dam and spillway. R. W. Gausmann and C. M. Madden. il diags plans Am Soc C E Pro 48: 1503-28 S '22; Discussion. 48:1885-7; 49:240-50, 566-7 D '22, F-Mr '23

Protection

Tiny air bubbles and giant dams; how air jets protect a great dam against the destructive fields of ice. S. G. Roberts. il Sci Am 128:232+ Ap '23

Repair

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Dams, Concrete
Amoskeag manufacturing company hydroelectric development. A. T. Safford. il plans Boston Soc C E J 10:95-128 Mr '23
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Build dam against rising water. il Concrete 21:104 O '22
Building a gravel retaining dam by dragline. C. H. Eiffert. il diags Eng N 90:926-7 My 24 '23
Building the highest dam in Europe; features of the Camarasa hydro-electric development in Cataluna, Spain. W. Ranney. il diags maps Eng N 89:260-7 Ag 17 '22
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Cement handled in bulk on the Hetch Hetchy dam. N. A. Eckart. il Eng N 88: 352-3 Mr 2 '22
Completion of Barrett dam wins close race with water. il Eng N 89:157-8 Jl 27 '22
Concrete barrier dam for intercepting drifting gravel and sand. diag Eng & Contr (W W) 59:605-6 Mr 14 '23
Concrete dam 22 feet high built with traveling form. diags Eng N 88:452 Mr 16 '22
Concrete dams—a controversy 20 years ago. Concrete 22:33 Ja '23
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Constructing Mitchell dam. L. G. Warren. il Pub Works 54:247-50 Ag '23
Constructing Mitchell dam on the Coosa river. L. V. Branch. il diags plan Eng N 91:500-5 S 27 '23
Construction features of Hartebeestpoort dam of South African irrigation department. il Eng & Contr 57:125-7 F 8 '22
Construction features of Hetch Hetchy dam. il diag Eng & Contr 57:225-7 Mr 8 '22
Construction methods at Laurel Road dam, Stamford, Conn. D: Bonner, jr. il Eng & Contr (W W) 60:745-50 O 10 '23
Construction of the Loch Raven dam of the Baltimore water works. W: A. Megraw. Munic Eng 62:217-20 Je '22; Same. Pub Works 52:437-9, 460-2 Je 17-24 '22; Same. Eng & Contr 58:124-6 Ag 9 '22
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Cordeaux and Avon reservoirs for Sydney water supply. il (supp) diags map Engineer 135:570-3 Je 1 '23
Decatur's new water works dam. E. E. Pierson. il Pub Works 52:336-7 My 13 '22
Devil's Gate dam proves success. F. B. Howe. il Pop Mech 37:368-70 Mr '22
Don Pedro project of the Turlock irrigation district. R. W. Shoemaker. il Gen Elec R 26:736-40 N '23
Emsworth lock and dam construction. il diags plan Pub Works 53:162-4 S '22
Floating concrete dam built on the Gila river; porous foundations require spread footings for low diversion dam. C. J. Blanchard. il diags plan Eng N 89:824-8 N 16 '22
Flood-control dam replenishes underground water source; Devil's Gate dam at Pasadena. il map Eng N 88:770-1 My 11 '22
Harnessing the California river; the Don Pedro dam. il Sci Am 129:33 Jl '23
Hetch Hetchy dam. il diags maps Pub Works 53:21-3, 43-5, 58-61 Jl 8-22 '22
Hetch-Hetchy dam completed. C: W. Geiger. il Pub Works 54:302-5 S '23
Hollow dam, Cisco, Texas, with notable design features. F. W. Chappell and E. M. Urban. il diags Eng N 91:706-10 N 1 '23
International paper company completes power plant on the Hudson. il diags plans Eng N 91:470-6 S 20 '23
Manufacturing methods and concrete structures; principles of waste saving applied in the erection of Don Pedro dam. il J Elec 49: 97-8 Ag 1 '22
Muscle Shoals—the Wilson dam. L. McClung. il Concrete 21:71-4 S '22
New irrigation dam of multiple-arch type. il Pop Mech 37:102-3 Ja '22
Novel construction features on 279-ft. Don Pedro dam. R. M. Beanfield. il diags plan Eng N 88:896-900 Je 1 '22
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O'Shaughnessy dam completed and reservoir storage begun. il Eng N 90:741-2 Ap 26 '23
O'Shaughnessy dam of San Francisco. il Eng & Contr (W W) 60:256-7 Ag 8 '23
Pine Hill dam. il Pub Works 52:397-9 Je 3 '22
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Raising Loch Raven dam, Baltimore. Eng N 89:20 Jl 6 '22
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Dams, Concrete—*Continued*
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Excitation

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Parallel operation

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Protection

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Repair

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Starting

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Parallel operation

Automatic sychronising gear. diag Engineer 134:253 S 8 '22
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Protection

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Repair

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Starting

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Temperature

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Testing

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Parallel operation

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How to wind fractional-horsepower d. c. motors. A. C. Roe. il diags Elec R 80:7-12 Ja '22
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Attention that is required when motors must operate 24 hours a day the year around in a cement mill. il Elec R 80:169-71+ Ap '22
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Eight good examples of motor mountings. il Elec R 80:20-1 Ja '22
How motors are located and identified. il diags Ind Eng 80:330-5 Jl '22
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Electric motors—Repair—*Continued*
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Changing from two- to three-phase by changing coil pitch. A. C. Roe. diags Power 56: 814 N 21 '22

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Starting devices

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Testing

Test-results obtained from a three-phase shunt commutator motor. F. J. Teago. il diags Inst E E J 60:328-38 Mr '22

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Electric motors, Railway—*Continued*

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See also Cars, Electric railroad—Bearings

Control

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Gearing

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Manufacture

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Repair

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Status of electric furnaces. L. H. Knapp. il diags Elec W 80:605-9 S 16 '22
See also Electric stoves

Electric patents
Electric patents. See weekly numbers of Electrical world

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12,000-kw. industrial power plant; Kokomo plant of the Pittsburgh plate glass company. il diag Power 56:674-9 O 31 '22
See also Boiler plants; Electric power; Electric substations; Farm lighting plants; Hydroelectric plants; Hydroelectric plants—Auxiliary plants; Power factor; Power plants; Steam plants
References on the power plant as a factory problem will be found under Power plants; references on central stations will be found under Electric plants (central stations) and under Electric utilities

Automatic operation

See Electric plants (central stations)—Automatic operation; Hydroelectric plants—Automatic operation

Control

See Electric plants (central stations)—Automatic operation; Hydroelectric plants—Automatic operation

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Interconnection a national problem. Elec W 81:741-2 Mr 31 '23
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Electric plants—Interconnection—*Continued*
Interconnection of alternating-current power stations. L. Romero and J. B. Palmer. Inst E E J 60:287-98 Mr '22; Abstracts. Engineer 133:193-4 F 17 '22; Elec R (Lond) 90: 315-16, 787-8, 837-9 Mr 3, Je 2, 16 '22; Electrician 88:157-8 F 10 '22; Discussion. Inst E E J 60:298-303, 803-25; 61:496-500 Mr, Jl '22, Ap '23; Elec R (Lond) 91:784 N 24 '22
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Superpower system in France. maps Elec W 80:118 Jl 15 '22
Supersystems for New York. Elec W 81:1293 Je 2 '23
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See also Superpower surveys

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See also Electric plants (central stations)—Load

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Utilisation of waste. Eng & Ind Management 7:102-5 Ja 26 '22

See also Boiler plants; Electric distribution; Electric engineering; Electric lighting; Electric lines; Electric plants—Interconnection; Electric railroads—Power; Electric service, Rural; Electric transmission; Electric utilities; Electric vehicles and the central station; Hydroelectric plants; Steam plants

Accounting
See Electric plants (central stations)—Costs; Electric utilities—Accounting

Advertising
See Electric industries—Advertising; Electric utilities—Advertising

Electric plants (central stations)—*Continued*

Automatic operation

Development of automatic control. H. C. Hoyt. il Gen Elec R 26:445-50 Je '23

Construction

Foundation and framing design of Colfax power station. M. E. Thomas. il diags Eng N 89:1102-5 D 28 '22

See also Electric switches—Isolated phase construction

Control

Problems and developments in the control and interconnection of power systems. H. R. Summerhayes. il diags Gen Elec R 26:327-37 Je '23

Cost of construction

Cost of outdoor metering installations. H. R. Thomas. il diags Elec W 80:119-21 Jl 15 '22

Estimated cost of 20,000-kw. plant addition. Elec W 80:280-1 Ag 5 '22

Unit costs of New Bedford generating station. il Elec W 78:1072-3 N 26 '21

Cost of operation

Comparison of operating costs of Diesel plants with particular reference to maintenance. Elec W 79:1225 Je 17 '22

Comparison of production expenses at Connors Creek. Elec W 79:635-6; 80:487-8 Ap 1, S 2 '22

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Residence consumer—what he costs and what he is worth. Elec W 81:1269-72 Je 2 '23

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See also Electric service, Rural—Cost; Power cost

Demand

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Employees

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Central stations and technical schools. M. S. Sloan. Elec W 81:971-2 Ap 28 '23

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Selling the sales department to the organization. C. Barnes. Elec W 80:938-9 O 28 '22

Training student engineers at the Newcastle-upon-Tyne electric supply co. Elec R (Lond) 92:430-1 Mr 16 '23

Equipment

Alternating current in New York; additions to the Hell Gate station. F. W. Smith. il plan Elec W 81:1196-9 My 26 '23

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Calumet station, Commonwealth Edison co. il diags plan Power 55:842-51 My 30 '22; Excerpts. Elec Ry J 59:897-901 Je 3 '22; Elec W 79:1110-14 Je 3 '22

Desirable duplication and safeguarding in the electrical equipment of a generating station. W: F. Sims. Inst E E J 42:704-5 Jl '23; Same. Power Pl Eng 27:786-7 Ag 1 '23; Discussion. Am Inst E E J 42:1356 D '23

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Electricity supply at Nelson; inauguration of new plant. il Elec R (Lond) 91:594-5 O 27 '22

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Electricity supply at Chester. il diags map Elec R (Lond) 89:843-6 D 23 '21
Extensions at Stoke-on-Trent electricity works. il plan Elec R (Lond) 90:543-4 Ap 21 '22
Hastings electricity undertaking; recent extensions. il Elec R (Lond) 91:777-9 N 24 '22
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See also Hydroelectric plants—England

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Supply of electricity to Paris; the Union d'électricité and the power station of Gennevilliers. il diags plan Elec R (Lond) 91: 89-93 Jl 21 '22

See also Hydroelectric plants—France

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Largest station using pulverized coal; Lakeside station at Milwaukee. il diags folding chart Power 55:604-10 Ap 18 '22; Excerpts. Coal Age 21:878-9 My 25 '22
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See Electric rates

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Fare collection

Collecting five and ten-cent fares. map Elec Ry J 61:204-5 F 3 '23
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See also Turnstiles, Fare collecting

Fares

Hollywood rehearing held. Elec Ry J 59:615-16 Ap 8 '22

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See also Freight cars, Electric railroad

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Constant check on headway. il Aera 11:155-8 S '22
Direct-reading headway recorder. il Elec Ry J 61:733-4 Ap 28 '23
Headway recorders assist in checking schedules. il Elec Ry J 60:268-9 Ag 19 '22

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Better inspection will bring lower maintenance costs. H: S. Day. Elec Ry J 62:255-6 Ag 18 '23
Setting standards for pull-ins. Elec Ry J 62: 445-6 S 22 '23

Interchangeable mileage tickets

See Electric railroads—Tickets

Maintenance and repair

Graphic records improve maintenance of high-tension, trolley, telephone and signal lines. il map Elec Ry J 58:1139-43 D 31 '21
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Self-propelled line car made from Ford truck useful on interurban. il Elec Ry J 62:96-7 Jl 21 '23
Tabulating line troubles. Elec Ry J 59:472-3 Mr 18 '22

See also Electric railroads—Equipment and supplies; Electric railroads—Shops; Electric railroads—Track; Street railroads—Track

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Motor bus auxiliaries

See Motor bus lines—Street railroad auxiliaries

Motor bus competition

See Street railroads—Motor vehicle competition

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Advantages of trolley wire versus feeder. G. H. McKelway. Elec Ry J 62:67-8 Jl 14 '23
Allocating energy consumption in Dayton. map Elec Ry J 60:41-2 Jl 8 '22
Bonus given in Racine for saving energy. Elec Ry J 61:927-8 Je 2 '23
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Power saving on electric railways. H. J. Meyer. Aera 11:817-21 F '23
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Relation between temperature and power used by electric cars. A. W. Baumgarten. Elec Ry J 60:77-8 Jl 15 '22
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Checking idle time of locomotives and service cars. il chart Elec Ry J 59:596 Ap 8 '22
Graphic records improve maintenance of high-tension, trolley, telephone and signal lines. il map Elec Ry J 58:1139-43 D 31 '21

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Electric railway statistics for 1921. map Elec Ry J 59:41-3 Ja 7 '22
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First aid on Chicago elevated railroads. B. I. Budd. il Elec Ry J 59:364-5 Mr 4 '22; Same. Aera 10:675-7 Mr '22
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Typical welding reclamation jobs. il Elec Ry J 62:225-6 Ag 11 '23

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Crossing protection on high-speed railway. il Elec Ry J 61:1047 Je 23 '23
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Pipe staff for flag and lantern signal. C. A. Elliott. il diags Elec Ry J 62:745 O 27 '23
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See Snow melters, Electric; Street railroads—Snow protection and removal

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Central station for interurban lines at Kansas City. plan Elec Ry J 61:599-600 Ap 7 '23
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New terminal in Baltimore. il plan Elec Ry J 61:549-51 Mr 31 '23

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Nuttall improved trolley base. il diag Elec Ry J 60:292-3 Ag 26 '22

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Drop-forged pull-overs used in Detroit. diags Elec Ry J 62:411 S 15 '23

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Multicoil feed water heater. il Power Pl Eng 26:1077 N 1 '22
New feed heater uses solid shell construction. il diag Power Pl Eng 27:298 Mr 1 '23
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Feed water heating
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Heat balance of the Connors Creek plant of the Detroit Edison company. C. H. Berry and F. E. Moreton. diags Mech Eng 44:22-5 Ja '22; Same cond. Power 54:958 D 20 '21; Discussion. Mech Eng 44:25-6+ Ja '22; Power 54:960 D 20 '21
Heat-balance system for Hell Gate station. J. H. Lawrence and W. M. Keenan. diags plan Mech Eng 43:793-5 D '21; Same cond. Power 54:956 D 20 '21; Excerpt. Power Pl Eng 26:115-16 Ja 15 '22; Discussion. Mech Eng 44:25-6+ Ja '22; Power 54:960 D 20 '21
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Locomotive feed water heating here—and abroad. il diag Ry R 72:922-4 Je 2 '23
Maintaining heat balance at Hell Gate. il diags Power 55:760-3 My 16 '22
Open type system of locomotive feed water heating. il diag Ry R 69:898-902 D 31 '21
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Removal of air from feed water. il diags Power Pl Eng 27:47-9 Ja 1 '23
See also Fuel economizers

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Flash evaporator. il diags Power 56:834-5 N 28 '22
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Getting rid of boiler scale. E. M. Rowe. il Brick & Clay Rec 61:797-8 N 28 '22
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Controlling density of boiler water. C. Brown. diag Power 56:854 N 28 '22
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Foundries—*Continued*
Manufacturing firm builds plant; the McMyler-Interstate co. il plan Foundry 49: 963-5 D 15 '21
Model foundry exhibited at Birmingham. il Iron Tr R 71:378 Ag 10 '22
Modern foundries of Central Europe. B. Schapira. il plans Foundry 50:900-5+, 946-51 N 15-D 1 '22
Nation's iron and steel industry centers in Cleveland. il map Iron Tr R 72:sup59-68 Ap 26 '23
Die neue giesserei der maschinenfabrik Eduard Laeis & cie., G. m. b. H., in Trier. C. Pardun. il diags plan Stahl & Eisen 42: 332-8 Mr 2 '22
Die neue giesserei und das herstellungsverfahren für zylinderblöcke der Fordmotor-co. C. Irresberger. diags Stahl & Eisen 42:126-8 Ja 26 '22
New Canadian motor foundry plant. il plan Iron Age 109:1068-70 Ap 20 '22
New foundry for casting chilled rolls; Garrison foundry, Pittsburgh. G: F. Tegan. il diags Iron Age 109:38-42 Ja 5 '22; Same cond. Brass W 18:97-100 Mr '22; Same abr. Metal Ind 20:158-9 Ap '22
New steel foundry at Fairfield car works; with layout. il Iron Age 112:137-40 Jl 19 '23
New steel foundry is operating at Parkersburg, W. Va. J: D. Knox. il plan Iron Tr R 73:455-9+ Ag 16 '23; Same. Foundry 51: 704-9 S 1 '23
New steel foundry; the Crucible steel castings co., Cleveland. il Iron Age 111:543-4 F 22 '23
New steel jobbing foundry; Eastern steel castings at Newark. il plan Iron Age 112: 884-7 O 4 '23
New textile machinery foundry of the Saco-Lowell shops at Newton Upper Falls, Mass. il Iron Age 109:1499-1503 Je 1 '22
Old New York foundry at Spuyten Duyvil closes. Iron Age 111:1773-4 Je 21 '23
Planning a new malleable shop. E. Touceda. diags Iron Tr R 71:243-8 Jl 27 '22; Same. Foundry 50:588-93 Jl 15 '22
Plant makes heavy machine tools; Toledo machine & tool co., Toledo, O. il diag plan Foundry 50:173-7 Mr 1 '22
Recalls curious experience; old time foundry equipped with made-to-order machinery. R. E. Masters. Foundry 51:590-1 Jl 15 '23
Rochester the foundrymen's convention city. G. B. Ellis. il plan Metal Ind 20:173-8 My '22
Small shop built for jobbing work. il Foundry 49:850-3 N 1 '21
Valve firm operated four shops. il Foundry 50:259-63 Ap 1 '22
Walker & Pratt build addition planned decade ago. H. R. Simonds. il Foundry 49: 915-19+ D 1 '21

See also Brass foundries; Foundry management; Foundry practice, and other headings beginning Foundry; *also* Mackintosh-Hemphill company

Accounting

See Foundry accounting

Congresses

Le Congrés international de fonderie (Paris, 12-15 septembre 1923). Génie Civil 83:349-51 O 13 '23
Le IIe congrès de l'Association technique de fonderie (Nancy, 5-8 octobre 1922). Génie Civil 81:340-3 O 14 '22
French hold sessions at Nancy; first meeting of the Association technique de fonderie de France. V. Delport. diags Foundry 50: 909-10 N 15 '22

Electric equipment

Association of iron and steel electrical engineers opens electrical exposition, Buffalo, Sept. 24. il Foundry 51:796-8 O 1 '23; Iron Tr R 73:815-18 S 20 '23
Choosing an electric melting furnace for the foundry. F. W. Brooke. Iron Tr R 70:529-31 F 23 '22
Complete electrification of foundries; abstracts. L. W. Egan. Iron Age 112:1043-5 O 18 '23; Ind Eng 81:483-4 O '23; Foundry 51:840-2 O 15 '23; Discussion. Iron Age 112: 1045-6 O 18 '23
Electric trains used in moving 300 tons of material daily into a large foundry. il Elec R 80:185-6 Ap '22
Foundry employs electricity for melting and annealing. H. R. Simonds. il diag Iron Tr R 70:1567-70 Je 1 '22; Same. Foundry 50:609-12+ Ag 1 '22
Using electric cranes in foundries. A. H. McDougall. Iron Tr R 70:1653-4 Je 8 '22

See also Electric furnaces, Foundry

Employees

Apprentice courses are successful. H. R. Simonds. il Iron Tr R 72:1377-81 My 10 '23
Demand for apprentices grows. A. Trowbridge. Foundry 51:691-3 S 1 '23
Discuss apprentice situation. W. S. Simon. Foundry 51:438-9 Je 1 '23
Problems in training. E. A. Parker. Foundry 51:439-40 Je 1 '23
Segregate apprentices. F. W. Kirky. Foundry 51:440-2 Je 1 '23
Symposium on foundry training at American foundrymen's association convention. Iron Age 111:1425-6 My 17 '23; Iron Tr R 72: 1525-6 My 24 '23
Training foundry apprentices. H. A. Frommelt. il Foundry 51:689-91, 737-9 S 1-15 '23; Same. Iron Tr R 73:1167-71 O 25 '23
Training foundry apprentices in France. H. M. Lane. il Iron Age 112:733-4 S 20 '23
Training system adopted by the Newark foundries. Iron Tr R 72:1893 Je 28 '23
Wages and hours of labor in foundries and machine shops, 1923. Monthly Labor R 17: 835-7 O '23

Equipment and supplies

Adequate equipment needed to operate a modern molding machine. A. Lenz. il diags Foundry 50:500-5 Je 15 '22
Belgians stage foundry exhibition. il Foundry 49:837-40 N 1 '21
Charging floor with undercover storage. E. A. Hunger. il plan Iron Age 108:1459-62 D 8 '21
Complete huge Wisconsin foundry; Fairbanks, Morse & co., Beloit. il diags Foundry 50:89-98 F 1 '22
Control in a railway iron and steel foundry. G. N. Shawcross. il diags Engineering 112: 832-6 D 16 '21
Equipment for making die-castings. A. G. Carman. il Mach 29:261-3 D '22
Features foundry equipment; new steel plant of Tennessee coal, iron and railroad co. E. C. Kreutzberg. il diags Foundry 51:611-15 Ag 1 '23
Forced draft unit fires core oven. il diag Foundry 50:244-5 Mr 15 '22
Ford principles and practice at River Rouge. J: H. Van Deventer. il diags plans Ind Management 65:1-11 Ja '23
Foundry trades exhibition, Birmingham, Eng., June 15-24. il diag Engineer 133:658-60, 692-4 Je 16-23 '22; Engineering 113:779-82, 786, 809-14 Je 23-30 '22; Eng & Ind Management 7:543-8 Je 29 '22
Die giesserei-fachausstellung in München, 14. bis 25. September 1921. diags Stahl & Eisen 42:128-30 Ja 26 '22
Great variety of products will be shown by exhibitors at American foundrymen's show. Iron Age 109:1526-30, 1709-11 Je 1, 15 '22; Iron Tr R 70:1577-82, 1723-8 Je 1, 15 '22; Foundry 50:406-11, 484-90 My 15, Je 15 '22; Brass W 18:175-8 Je '22
Handling malleable castings. H. R. Simonds. il Foundry 50:733-6 S 15 '22
Handling malleable castings in process. F. L. Prentiss. Iron Age 111:591-4 Mr 1 '23
Hose and its use in the foundry. Brass W 18: 304-5 O '22
Improve equipment despite lull. E. L. Shaner. il Iron Tr R 70:37-8 Ja 5 '22
International exhibit shows interesting developments. V. Delport. il Foundry 51:777-80 O 1 '23

Foundries—Equipment and supplies—*Continued*
invents safety pouring crucible device. J. Pearson. diags Foundry 51:680 Ag 15 '23
Machine builder erects foundry; Toledo machine & tool co., Toledo, O. P. Dwyer. il plans Iron Tr R 70:683-6 Mr 9 '22
Makes valves in new foundry. H. R. Simonds. il Foundry 50:431-5 Je 1 '22
Methods of handling foundry material shown. il Iron Tr R 72:1319-22 My 3 '23
Molding machine. W. J. Reardon. il Metal Ind 20:423-4 N '22
Molding machine modern necessity. H. D. Dickinson. Foundry 50:371-2 My 1 '22
Push molds from bench machine to track by air cylinder mechanism. il Foundry 49: 858 N 1 '21
Pyrometer indicates temperature of molten metal. il Foundry 50:126 F 1 '22
Removing the dust from the casting cleaning room. C. C. Hermann. diags Ind Management 63:171-4 Mr '22
Savings effected in new radiator plant; the Republic boiler and radiator co., in Woodberry, Baltimore, Md. M. C. Lippitt. il plan Iron Age 112:591-7 S 6 '23
Shaking-out of heavy flasks made easier. il Iron Age 112:141 Jl 19 '23
Small overhead foundry runways. diag Eng & Ind Management 8:23 Jl 27 '22
Solves material handling problems in design of new foundry; plant of Gilbert & Barker mfg. co., Springfield, Mass. H. R. Simonds. il plan Iron Tr R 69:1545-8 D 15 '21; Same. Foundry 50:1-4 Ja 1 '22
Specializes in electrical parts; company builds up business making castings for electrical machinery and increases capacity. il Foundry 50:653-60 Ag 15 '22
Success attends British show, Birmingham, June 15-24. H. C. Estep. il Foundry 50:580-3 Jl 15 '22
Technical sessions of A.F.A. on steel foundry subjects. Iron Age 109:1666, 1707-8 Je 15 '22
Tramrail system in car wheel foundry. il Iron Age 112:264 Ag 2 '23
Utilizing steam from waste-heat boilers. il Foundry 50:719-20 S 1 '22; Same. Iron Tr R 71:995 O 12 '22
What exhibitors will display at American foundrymen's show. Iron Tr R 72:sup73-9 Ap 26 '23; Foundry 51:309-17, 397-402 Ap 15, My 15 '23; Brass W 19:140-3 My '23; Iron Age 111:1339-41 My 10 '23
Zur entwicklung des giesspfannenstopfens. diags Stahl & Eisen 42:848-50 Je 1 '22

See also Casting machines; Converters; Core ovens; Crucibles; Cupola furnaces; Foundries—Electric equipment; Foundries—Safety devices and measures; Foundry flasks; Foundry ladles; Foundry machinery; Grinding machines; Ladle cars; Molding machines; Oxyacetylene apparatus; Riddles; Sand, Foundry; Sand blast

Exhibitions

Foundrymen meet in Hamburg. H. Hermanns. il diags Foundry 51:792-5 O 1 '23; Abstract. Iron Tr R 73:890-1 S 27 '23
German founders' zeal for their art; triple convention at Hamburg. Iron Age 112:688+ S 13 '23

See also Foundry machinery—Exhibitions

Floors

What is best type of foundry floor. C. C. Hermann. Foundry 50:56+ Ja 15 '22

Heating and ventilation

Ventilating a moulding shop. J. Mackay. diags plan Dom Eng 101:227-9 N 11 '22
Ventilating ceiling on sand blast room. plan Foundry 51:472 Je 1 '23; Same. Iron Tr R 72:1759-60 Je 14 '23

Layout

Cleaning steel castings. H. R. Simonds. il plan Foundry 51:457-60 Je 1 '23
Designs foundry to fit additions. G: H. Manlove. il plans Foundry 49:841-2 N 1 '21
Foundry layout and material handling at the Wilson foundry & machine co. H: M. Lane. il plan Iron Age 111:1037-40 Ap 12 '23
Foundry layout that lowers unit costs. J. C. Merwin. il Factory 30:166-7 F '23
Handling expedited in new foundry of Gilbert & Barker mfg. co. H. R. Simonds. il plan Foundry 50:1-4 Ja 1 '22; Same. Iron Tr R 69:1545-8 D 15 '21
New steel foundry is operating at Parkersburg, W. Va. J: D. Knox. il plan Iron Tr R 73:455-9+ Ag 16 '23; Same. Foundry 51: 704-9 S 1 '23
Produces malleable for own use. P. Dwyer. il plan Iron Tr R 71:587-90 Ag 31 '22
Production methods at fittings plant; works of Geo. B. Limbert & co., East Chicago, Ind. G. L. Lacher. il plan Iron Age 109: 1731 Je 22 '22
Savings effected in new radiator plant; the Republic boiler and radiator co., in Woodberry, Baltimore, Md. M. C. Lippitt. il plan Iron Age 112:591-7 S 6 '23
Small shop secures low costs; aluminum shop built for economical production. H. E. Diller. il plan Foundry 50:385-9 My 15 '22

Lighting

Good foundry lighting. J. M. Shute. il diags Elec R 80:165-8+ Ap '22

Management

See Foundry management

Safety devices and measures

Approve safety code for foundries. Foundry 51:57 Ja 15 '23
Arbeiterschutz in giessereien. A. Holverscheid. Stahl & Eisen 43:968-75, 1157-62 Jl 26, S 6 '23
British foundries decrease accidents. Foundry 50:668 Ag 15 '22
Protecting against hot metal burns. il Iron Tr R 71:1707-9 D 21 '22
Protecting workmen's eyes. B. W. Nutt. Foundry 50:844-5 O 15 '22; Same. Iron Tr R 72:946-7 Mr 29 '23
Reducing electrical hazards in foundries. W. Greenwood. Foundry 49:848-9 N 1 '21
Safe foundry practice. 2d ed., rev. 85p Travelers insurance co., Hartford, Conn. '21
Safety code to protect foundry workers. Iron Age 111:217-20 Ja 18 '23; Same. Foundry 51: 224a, 268a, 320a, 368a, 410a, 446a Mr 15-Je 1 '23
Safety in foundries. R. W. Patmore. Eng & Ind Management 8:90-1 Ag 24 '22

Statistics

Foundry and machine shop products, 1921. Am Mach 58:727 My 17 '23
Increase in foundries between the years 1922 and 1920. maps Foundry 50:761-5 S 15 '22; Same. Iron Tr R 71:920-2 O 5 '22
Seeing ourselves through the census. Am Mach 58:585-8 Ap 19 '23

Foundries, Cooperative

Operate co-operative foundry. E: H. Tingley. Foundry 51:735-6 S 15 '23

Foundry accountng

Accounting for foundry overhead expense. F. C. Everitt and J. Heywood. Iron Age 112:67-70, 147-50, 340-2 Jl 12-19, Ag 9 '23
Cost accounting of foundry labor. F. C. Everitt and J. Heywood. Iron Age 111:1701-4 Je 14 '23
Cost control for foundries. F. C. Everitt and J. Heywood. 226p McGraw-Hill '23
Cost data essential to foundries. R. E. Belt. Foundry 49:966-9 D 15 '21; Same. Iron Age 108:1351-3 N 24 '21
Figure costs on an engineering basis. W. L. Churchill. Foundry 51:376-7 My 1 '23
Foundry costs and establishment charges. D. Adamson. Engineering 112:894-5 D 30 '21; Abstract. Engineer 132:604 D 2 '21
How foundry costs control foundry practice. D. T. Sterling. Ind Management 63:3-6 Ja '22
Keeping down maintenance expense. D. J. Perdue. Foundry 50:447 Je 1 '22
Material cost accounting in a foundry. F. C. Everitt and J. Heywood. Iron Age 111:1165-9 Ap 26 '23

Foundry accounting—*Continued*
Obtaining engineering costs in foundry and machine shop. H. B. May. Iron Tr R 69: 1218-21, 1356-8, 1485-9, 1619-22+; 70:207-10 N 10, 24, D 8, 22 '21, Ja 19 '22
Simplifying foundry costs. A. Baruch. Foundry 51:479-81, 533-5, 565-7, 616-18, 653-6, 710-13, 749-50 Je 15-S 15 '23
Standard foundry costs. T: Harper. Metal Ind 20:377-81 O '22; Same. Foundry 50:942-5 D 1 '22; Discussion. Metal Ind 20:417-19, 459-60, 477; 21:55-7, 112 N-D '22, F-Mr '23
System keeps tab on foundry costs. H. C. Keller. Foundry 50:309-10+ Ap 15 '22
Volumetric efficiency as a measure of foundry costs. D. T. Sterling. il diags Ind Management 63:201-5 Ap '22

Foundry chemistry
Beiträge zur eisenhüttenchemie (Juli 1920 bis Juni 1921). Stahl & Eisen 42:1058-63, 1102-6 Jl 6-13 '22

See also Alloys

Foundry costs
Simplifying foundry costs. A. Baruch. Foundry 51:479-81, 533-5, 565-7, 616-18, 653-6, 710-13, 749-50 Je 15-S 15 '23
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See also Foundry accounting

Foundry flasks
Adequate equipment needed to operate a modern molding machine. A. Lenz. il diags Foundry 50:500-5 Je 15 '22
Foundry flasks repaired by arc welding. A. M. Candy. Elec W 81:1278 Je 2 '23; Same. Ind Eng 81:511-12 O '23
Rolls molded in sectional flasks. J. R. Hadsum. diags Foundry 50:206-7 Mr 1 '22

Foundry furnaces. See Electric furnaces, Foundry; Furnaces, Foundry

Foundry laboratories
Laboratory for malleable iron foundry. il Iron Age 109:643-4 Mr 9 '22
Malleable castings research laboratory. il Iron Age 109:1819-20 Je 29 '22
New laboratory at the T. H. Symington iron co., Rochester, N. Y. aids foundry. il Foundry 51:542-3 Jl 1 '23

See also Foundry research

Foundry ladles
Design affects ladle operation. A. W. Gregg. diags Iron Tr R 70:1648-50 Je 8 '22; Same. Foundry 50:682-4 Ag 15 '22
Ladle device facilitates pouring of molds. il Iron Tr R 70:1123 Ap 20 '22; Iron Age 109: 1002 Ap 13 '22
Rules for finding ladle holding capacity. Foundry 50:194 Mr 1 '22

Stoppers
Development of steel ladle stoppers. diags Foundry 51:35-6 Ja 1 '23

Foundry literature
Foundry book compilers and authors. W: H. Parry. Metal Ind 20:388-9 O '22

Foundry machinery
English develop breaker for pig and scrap. il Iron Tr R 71:1710 D 21 '22
53-in. tyre mould and core boring and turning mill. il Engineering 112:888 D 30 '21
French jarring machine compact and rapid. diag Foundry 50:932 N 15 '22
Germans jar molds mechanically. U. Lohse. diags Foundry 49:934-8 D 1 '21
Jarring for molding pipe. plan Iron Age 108: 1412-13 D 1 '21
Molding equipment refinements mark exhibits. il Iron Tr R 72:1322-3+ My 3 '23
Osborn stationary machine for filling flasks. il Iron Age 109:591 Mr 2 '22; Am Mach 56: 387 Mr 9 '22
Sand cutter for medium floors. il Iron Age 109:1224 My 4 '22
Squeeze pattern draw Belgian machine. diags Foundry 50:993 D 15 '22

See also Casting machines; Molding machines

Exhibitions
Belgians stage foundry exhibition. il Foundry 49:837-40 N 1 '21
Foundry trades exhibition, Birmingham, Eng., June 15-24. il diag Engineer 133:658-60, 692-4 Je 16-23 '22; Engineering 113:779-82, 786 Je 23 '22; Eng & Ind Management 7:543-8 Je 29 '22
Foundrymen meet in Hamburg. H. Hermanns. il diags Foundry 51:792-5 O 1 '23; Abstract. Iron Tr R 73:890-1 S 27 '23
Germans show new foundry equipment. C. Irresberger. il diags plan Foundry 49:984-6 D 15 '21
Die giesserei-fachausstellung in München, 14. bis 25. September 1921. il diags Stahl & Eisen 41:1522-6, 1736-41, 1892-7 O 27, D 1, 29 '21
Great variety of products will be shown by exhibitors at American foundrymen's show Iron Age 109:1526-30, 1709-11 Je 1, 15 '22; Iron Tr R 70:1577-82, 1723-8 Je 1, 15 '22; Foundry 50:406-11, 484-90 My 15, Je 15 '22; Brass W 18:175-8 Je '22
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Foundry management
Analyzes defective casting losses. H. B. May. Foundry 49:843-5 N 1 '21
Apply time study to foundry work. J. F. Blank. Foundry 51:443 Je 1 '23
Brass foundry management. C: Vickers. Brass W 18:241-2 Ag '22
Cleaning room cost can be reduced. D. T. Sterling. Foundry 50:373-4 My 1 '22
Compensation plan that works. W: J. Franklin. Ind Management 66:149-50 S '23
Control in a railway iron and steel foundry. G. N. Shawcross. il diags Engineering 112: 832-6 D 16 '21
Co-ordinating foundry control. D. M. Avey. il Iron Tr R 70:1562-6 Je 1 '22
Core room premium system. H. Farr. Foundry 51:371-4 My 1 '23
Cost comparison in handling materials. S. B. Brown. il Management & Adm 6:611-16 N '23
Departmental collaboration. J. Edgar. Eng & Ind Management 6:690-2 D 15 '21
Foundry operated on schedule. E. T: McEniry. Foundry 50:663-5 Ag 15 '22
How foundry costs control foundry practice. D. T. Sterling. Ind Management 63:3-6 Ja '22
Looks back on fifty years of progress. R. H. Palmer. Foundry 50:421-2 My 15 '22
Routing work in the steel foundry. L. J. Barton. Iron Age 111:1170-2 Ap 26 '23
Simplification lowers production costs $1,000,000 for eight plants. A: H. Landwehr. il Factory 31:19-21+ Jl '23
Standard steel foundry trade practices adopted by Electric steel founder's research group. Mach 29:965 Ag '23
Surprising profits from small savings. C. C. Chesney. il Factory 31:595-8+ N '23
Survey made of foundry industry. R. E. Wendt. Foundry 51:337 Ap 15 '23
Systemising foundry production. H. Bentley. Eng & Ind Management 6:631-2 D 1 '21
Technical control of the McCook field foundry. E. H. Dix, jr. il Metal Ind 20:426-9 N '22
Time study in a malleable foundry. M. A. Harder. Iron Age 112:748 S 20 '23
Time study means progress. A. J. Kramer. diags Foundry 51:72-6 Ja 15 '23
Tool checking systems in foundries. W. J. Sansom. plan Am Mach 57:795-6 N 23 '22

See also Foundries—Employees; Foundries—Safety devices and measures; Foundry practice; Pattern numbering; Pattern storage

Foundry practice
Accuracy goal in brass shop. P. Dwyer. il Foundry 51:247-51 Ap 1 '23
Ancient art of bell making records the progress of mankind. il Pop Mech 40:596-8 O '23
Ancient French foundry practice. il Foundry 50:332-3 Ap 15 '22
British motor castings methods. B. Shaw and J. Edgar. diags plan Foundry 50:10-16, 57-62, 103-7, 149-52, 198-202, 236-9 Ja 1-Mr 15 '22
Buoy ball presents problem. L. V. Johnston. diags Foundry 51:880-2 N 1 '23
Car wheel manufacture revolutionized. G. L. Lacher. il diags plan Iron Age 109:847-52, 939-43 Mr 30-Ap 6 '22
Cast-iron pots made in China. W. E. Jewell. il diags Foundry 50:444-7 Je 1 '22
Cast nickel-chromium alloys. E. F. Lake. il Foundry 50:452-4 Je 1 '22
Casting Chevrolet cylinders. il diag Foundry 50:565-9+ Jl 15 '22
Casting crown brasses and hub plates in place. F. H. Colvin. il Am Mach 59:479-80 S 27 '23; Discussion. 59:729-31 N 15 '23
Casting hard rolls. diags Engineering 115: 695 Je 1 '23
Casting heavy iron ingot molds. J: H. Eastham. diags plans Foundry 50:17-19 Ja 1 '22
Casting of metals. T: Turner. Brass W 18: 191-5 Je '22
Casting rod packing in a railroad shop. I. B. Rich. il Am Mach 57:382 S 7 '22
Castings given pressure test. H. E. Diller. il Foundry 51:354-62 My 1 '23
Castings made without heads. E. V. Ronceray. il diags Foundry 50:828-32 O 15 '22
Casts hubs entirely in cores. H. E. Diller. il diags Foundry 51:169-75 Mr 1 '23
Changes in patterns that facilitate molding. M. E. Duggan. diags Mach 28:773-5 Je '22
Cheapens core sand mixtures. C. S. Koch. diags Foundry 51:665-70+ Ag 15 '23
Constructs reservoir to pour fly wheel. H. W. Gilbert. Foundry 50:765-6 S 15 '22
Core sand in the foundry. G. Pouplin. Brass W 17:345-50 D '21
Dispenses with a cope flask. J. H. Eastham. diags plan Foundry 51:799 O 1 '23
Dr. Edward Kirk's system of foundry practice; dry sand cores. E: Kirk. 198p Edward Kirk, Philadelphia, Pa. '22
Dried mold solves problem. J. F. Redfeather. diags Foundry 50:967 D 1 '22
Eliminating skilled foundry labor; special machines and conveyors result in producing 500 Chevrolet 4-cylinder castings per day. F. L. Prentiss. il diags Iron Age 111:949-54 Ap 5 '23
Equipment employed for making soil pipe. Foundry 51:217 Mr 15 '23
Exactitude in propeller manufacture. il Sci Am 126:260-1+ Ap '22
Finished seats are cast inside valves. D. Partridge. il Foundry 51:784 O 1 '23
Fittings made on production basis. il Foundry 50:359-65 My 1 '22
Ford engine-cylinder production. P. E. Haglund and I. B. Scofield. il diag plan Soc Auto Eng J 11:463-71 D '22
Ford principles and practice at River Rouge. J: H. Van Deventer. il Ind Management 64: 321-8; 65:67-76 D '22, F '23
Formen und giessen von blockformen. C. Irresberger. diags Stahl & Eisen 42:649-54, 1013-16 Ap 27, Je 29 '22
Founders' trade practice. Power Pl Eng 27: 882 S 1 '23
Foundry difficulties; a statistical survey of difficulties encountered by non-ferrous foundries over a period of years. A. Bregman. Metal Ind 20:269-70 Jl '22
Foundry layout and material handling at the Wilson foundry & machine co. H: M. Lane. il plan Iron Age 111:1037-40 Ap 12 '23
Foundry production of air-cooled cylinders. E. H. Dix, jr. il Soc Auto Eng J 12:53-6 Ja '23
Foundry work; a text on molding, dry-sand core-making, and the melting and mixing of metals. R. E. Wendt. 206p McGraw-Hill '23
Foundry work on motor cylinders. il Am Mach 56:962-3 Je 29 '22
Foundrymen's handbook. 309p Penton pub. co. '22
Germans jar molds mechanically. U. Lohse. diags Foundry 49:934-8 D 1 '21
Heavy tonnage from a small floor. il Foundry 50:301-7 Ap 15 '22
How a British foundry specializes. H. C. Estep. il Foundry 49:879-87 N 15 '21
How ingot mold castings are made. il diags Foundry 50:229-35 Mr 15 '22
How large engine parts are made. P. Dwyer. il Foundry 50:66-73, 114-19 Ja 15-F 1 '22
How to mold a planer table. R. H. Palmer. il Foundry 51:767-9 O 1 '23
Improve practice in radiator shops. H. E. Diller. il Foundry 50:20-6 Ja 1 '22
India shop adopts continuous molding. diag Foundry 51:739 S 15 '23
Laboratory control in automobile castings. H: M. Lane. Iron Age 112:212-14 Jl 26 '23
Large pattern and core work on the Pacific coast. il Am Mach 59:553-5 O 11 '23
Machining qualities set standard for telephone box. H. R. Simonds. il Foundry 49: 970-3 D 15 '21
Make tanning machine parts. P. Dwyer. il Foundry 51:811-16 O 15 '23
Makes difficult castings. il plan Foundry 50: 857-62 N 1 '22
Makes loam pattern for lamp standard. T: Nelson. Foundry 51:882 N 1 '23
Makes machine tool castings. P. Dwyer. il Foundry 51:853-7 N 1 '23
Making cutlery in New England. H. R. Simonds. il Iron Tr R 71:111-16 Jl 13 '22
Making flanged hub on jolt machine. G. White. diags Foundry 50:706 S 1 '22
Making nonferrous castings. G: A. Drysdale. Foundry 50:1006-7 D 15 '22
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Molding large card cylinders. H. R. Simonds. il diags Foundry 51:87-92 F 1 '23
Molding machine practice is successful. P. R. Ramp. diags Iron Age 109:397-9, 463-4 F 9-16 '22
Molding problem. M. E. Duggan. diag Mach 29:968 Ag '23
Molding three-part work in a two-part flask. M. E. Duggan. diag Mach 29:18 S '22
Molds a track curve without pattern. J. H. Eastham. diag plan Foundry 51:327 Ap 15 '23
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Operating Wilson foundry. D. R. Wilson. il plan Foundry 51:219-25, 269-74, 323-7 Mr 15-Ap 15 '23

Foundry practice—*Continued*
Pencil gates applied to friction disk. W. H. Roesner. diag Foundry 51:14 Ja 1 '23
Permanent pit proves worth. J. H. Eastham. diags Foundry 51:200 Mr 1 '23
Planning production on limited orders. J: Grennan. il diag Foundry 51:634-5 Ag 1 '23
Preventable variation in weight. J: D. Wise. Foundry 50:722-5 S 1 '22
Problems involved in casting metal. T: Turner. diags plan Foundry 49:926-33 D 1 '21
Producing two-part castings in three-part molds. W: H. Parry. diags Metal Ind 20: 218-19 Je '22; Same. Foundry 50:806-7 O 1 '22
Production in jobbing shop. J. H. Eastham. il diags Foundry 51:517-19+ Jl 1 '23
Production methods at fittings plant; works of Geo. B. Limbert & co., East Chicago, Ind. G. L. Lacher. il plan Iron Age 109: 1729-33 Je 22 '22
Propeller molding is varied. R. H. Palmer. il diags Foundry 51:482-5+ Je 15 '23
Quantity production of automobile cores. H: M. Lane. il Iron Age 111:745-51 Mr 15 '23
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Roll cast in dry sand scabs on face. diag Foundry 51:362 My 1 '23
Rolls molded in sectional flasks. J. R. Hadsum. diags Foundry 50:206-7 Mr 1 '22
Runners and risers. J. Homer. diags Brass W 17:352-5 D '21
Sand and molding for automobile castings; quantity production at plant of Wilson foundry & machine co., Pontiac, Mich. H: M. Lane. il Iron Age 111:1173-6 Ap 26 '23
Savings in the foundry. il diags Mach 28:781-2 Je '22
Seek to maintain quality. H. C. Estep. il Foundry 50:979-83; 51:8-11 D 15 '22-Ja 1 '23
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Shallow cope affects the strength of pipe. T: Nelson. diags Foundry 50:557-8 Jl 1 '22
Simple rig for reducers. J. W. Broadbent. il diags Foundry 50:846-7 O 15 '22
Single casting that is in two parts. S. Copeland. Am Mach 57:625 O 19 '22
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Special rigging required by soil pipe parts. Foundry 51:800-1 O 1 '23
Specialized molding machine problem; how thin cylinder castings with internal ribs are made successfully on machines. il Iron Age 109:1507-9 Je 1 '22
Specializes in electrical parts; company builds up business making castings for electrical machinery and increases capacity. il Foundry 50:653-60 Ag 15 '22
Standardizing taper on round cores. W: J. Ward. diags Foundry 51:225 Mr 15 '23
Steel turret track castings. S. W. Brinson. il Foundry 51:645-8+ Ag 15 '23
Technical men direct foundry. H. E. Diller. il plan Foundry 50:775-82 O 1 '22
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See Gas industry—Advertising

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See Gas contracts

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See also Gas companies—Employees

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See Gas rates

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See also Gas and electric shops

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See also Gas, Natural; Gas and electric shops; Gas as fuel; Gas companies; Gas cooking; Gas distribution; Gas heating; Gas lamps; Gas lighting

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Gas industry—Merchandizing—*Continued*
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Spherical gears. C: H. Logue. diags Mech Eng 44:713-19 N '22
Spiral bevel gears which can be hobbed. N. Trbojevich. il diags plan Am Mach 59:647-52 N 1 '23
Use of optical instruments in machine work. il diags Am Mach 56:697-701 My 11 '22

Tables, calculations, etc.

How to use gear-cutting hobs. S. O. Bjornberg. il charts Soc Auto Eng J 12:181-5; Discussion. 185-7 F '23

Gear cutting machines

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Brown & Sharpe spur and spiral gear hobbing machine. il Am Mach 59:635-6 O 25 '23; Iron Age 112:1115-16 O 25 '23; Mach 30:227-9 N '23
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Commercial gear-cutting practice. F. D. Jones. il diags Mach 28:437-46 F '22
Cross gear-tooth rounding machine. il Am Mach 56:680 My 4 '22
Cutting bevel gears with formed cutters. F. D. Jones. il diag Mach 29:363-5 Ja '23
Cutting slots in knitting machine parts with gear-cutting machines. F. R. Daniels. diags Mach 30:44-6 S '23
Cutting spur gears on gear shapers. il diags Mach 28:645-50 Ap '22
Device for gashing the teeth of bevel pinions. M. Wright. il diag Am Mach 57:495-6 S 28 '22
Diamond universal hob for cutting sprocket teeth. il Am Mach 56:350-1 Mr 2 '22
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Gleason 8-inch bevel gear generator. il Am Mach 59:490-1 S 27 '23; Iron Age 112:850 S 27 '23; Mach 30:150-1 O '23
Gleason 4-in. spiral bevel gear generator. il Am Mach 56:38 Ja 5 '22; Mach 28:411-12 Ja '22
Gleason gear planer at Watertown arsenal. il Am Mach 57:344-5 Ag 31 '22
Hobbing-machine operation. J: Edgar. Soc Auto Eng J 12:179-80 F '23
How a shop saved by replacing old shop equipment with new equipment. H. F. Pusep. diags Am Mach 59:203-4 Ag 9 '23
Improved rack cutting attachment. il Automobile Eng 11:369 N '21
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Large Sykes gear generators. Engineering 115: 69, 78, pl 5 Ja 19 '23
Maag gearing. L. J. Le Mesurier. il diags Engineering 112:801-5 D 9 '21
New herringbone gear planer. N. Leerberg. diags plan Am Mach 59:561-3 O 11 '23; Abstract. Mech Eng 45:707-8 D '23
New spur gear grinder generates true involute tooth curve. il diags Automotive Ind 48: 968-9 My 3 '23
New worm gear generating machine made by Smith and Coventry, ltd. il Engineer 133: 78-9 Ja 20 '22
New worm gear generating machine made by William Muir & co. il Engineer 132:654 D 16 '21
Old English machine for cutting spiral bevel gears. W. Owen. il Am Mach 56:556-7 Ap 13 '22
Special hobbing attachment. O. S. Marshall. il diags Am Mach 57:970 D 21 '22
Stevenson model 6-A multiple gear shaper. il Am Mach 56:347-8 Mr 2 '22; Mach 28:581-2 Mr '22
Thread milling cutters and hobs. A. Nugent. diags Am Mach 57:934 D 14 '22
Vertical-feed knock-off. O. S. Marshall. il diag Am Mach 58:83-4 Ja 11 '23

Manufacture

Making hobs for cutting the teeth of gears. E. Sheldon. il Am Mach 59:623-7 O 25 '23

Testing

Device for testing the tooth faces of hobs and gear cutters. A. W. Freeman. il diags Am Mach 59:29 Jl 5 '23
Testing gear-hobbing machines. D. V. Waters. il diags Mach 29:304-6 D '22

Gear testing machines

American gear tester built to check involute curves. il diags Automotive Ind 49:538-9 S 13 '23
Davenport spiral-bevel gear testing machine. il Mach 29:237 N '22; Am Mach 57:711 N 2 '22; Iron Age 110:1140 N 2 '22
Fixture for testing worms and worm gears. A. J. Cayouette. diags Am Mach 59:631 O 25 '23
Gear-measuring machine. il diags Engineering 116:104-9 Jl 27 '23
Gear-testing machines. il Sci Am 127:401 D '22
Lees-Bradner gear-tooth testing machine. il Mach 29:649-51 Ap '23; Am Mach 58:640-1 Ap 26 '23
Machine for measuring gear teeth, constructed by the Metropolitan-Vickers electrical co. il diags Engineering 114:410-11 S 29 '22
New method for determining the effect of speed upon the strength of gear teeth. W. Lewis. diags Mech Eng 44:813-15 D '22
Pitch line indicator attachment. E. C. Cooley. diags Mach 29:141 O '22
Pratt & Whitney odontometer for testing gear teeth. il Am Mach 57:158 Jl 27 '22; Iron Age 110:204 Jl 27 '22; Mach 28:1010-11 Ag '22
Saurer bevel gear testing machine. il diags Engineering 113:228-9 F 24 '22; Same. Soc Auto Eng J 11:193-4 Ag '22
Spur-gear grinding and testing. A. J. Ott and C. L. Ott. il diags Soc Auto Eng J 13:401-6 N '23; Discussion. 13:473-5 D '23
Testing involute spur gears; the Saurer gear testing machine and the odontometer. M. Estabrook. il charts diag Mech Eng 45:32-4+; Discussion. 81 Ja '23
Testing machine developed to solve gear strength problem. W. Lewis. diags Automotive Ind 48:974-8 My 3 '23
Testing spiral bevel gears in manufacture. il Automotive Ind 47:981-2 N 16 '22
Use of the projection comparator in testing gear teeth. R. E. Flanders. il Iron Age 109: 1137-8+ Ap 27 '22

See also Minimeters

Gearing
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H. R. reduction gear. diag Eng & Ind Management 8:56 Ag 10 '22
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Modern industrial gear. W. H. Phillips and L. F. Burnham. il diags Eng Soc W Pa 39: 19-35 F '23; Same cond. Iron Age 112:1037-8 O 18 '23; Discussion. Eng Soc W Pa 39: 36-43 F '23
Overhanging gear drives. J. T. Towlson. diags Am Mach 59:525 O 4 '23
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See also Airship engines—Gearing; Automobiles—Gearing; Chain gear; Electric motors, Railway—Gearing; Gear cutting; Gear cutting machines; Gear testing machines; Locomotives—Gearing; Motor trucks—Gearing; Oil gear system; Planning machines—Gearing; Power transmission; Steam turbines, Marine—Gearing; Textoil gear board; *also* American gear manufacturers' association

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See also Gearing—Testing

Manufacture
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Gear grinding. R. S. Drummond. il Soc Auto Eng J 12:173-6 F '23
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Microscope aids steel selection. E. C. Smith. il Iron Tr R 73:673-7+ S 6 '23
Precautions for cast helical gears. J: S. Watts. diag Am Mach 59:656 N 1 '23

Gearing—Manufacture—*Continued*
Producing spur and bevel gears with hot-rolled teeth. il Automotive Ind 47:618-21 S 28 '22; Iron Age 110:861-3 O 5 '22; Automobile Eng 12:313-15 O '22
Quality control in gear manufacture. S. O. Bjornberg. il charts Mach 29:623-6 Ap '23
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Roughing bevel gears and pinions. F. D. Jones. il diag Mach 29:287-92 D '22
Some causes of gear-tooth errors and their detection. K. L. Herrmann. diags Soc Auto Eng J 11:391-7 N '22; Same. Automotive Ind 47:869-73 N 2 '22; Same cond. Am Mach 57:841-3 N 30 '22; Abstract. Mech Eng 45: 50-1 Ja '23; Discussion. Soc Auto Eng J 12: 26-7 Ja '23
Spur-gear grinding and testing. A. J. Ott and C. L. Ott. il diags Soc Auto Eng J 13:401-6 N '23; Discussion. 13:473-5 D '23
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See also Gear cutting; Gear cutting machines

Repair

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Specifications

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See also Chain gear—Standards

Tables, calculations, etc.

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Gear tooth shapes. E. W. Miller. diags Am Mach 56:129-32, 168-72 Ja 26-F 2 '22
Gleason works system of bevel gears. F. E. McMullen and T. M. Durkan. diags Mach 28:788-92 Je '22; Same. Automotive Ind 46:1064-8 My 18 '22; Same. Am Mach 56: 849-53 Je 8 '22; Same. Iron Age 109:1670-3 Je 15 '22
Law of the involute curve. O. G. Simmons. diags Am Mach 57:801-3, 837-9 N 23-30 '22
Measuring the tooth thickness of helical involute gears. E. Wildhaber. diags Am Mach 59:587-8 O 18 '23
Measuring tooth thickness of involute gears. E. Wildhaber. diag Am Mach 59:551-2 O 11 '23
Methods of computing pitch of spur gears. G: F. Nordenholt. chart Mach 28:660-2 Ap '22
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Proportions of industrial gears. G. E. Katzenmeyer. charts diags Mach 28:798-802 Je '22
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Strength and proportion of industrial gears. G. E. Katzenmeyer. charts Am Mach 56: 666-71 My 4 '22; Correction. 56:713 My 11 '22

Testing

Dial gage device used with success to test spiral bevel gears. P. M. Heldt. il diags Automotive Ind 48:1088-9 My 17 '23
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Gear steel. il diags Automobile Eng 13:232-7 Ag '23
Hartness comparator for gaging gears. il Am Mach 56:790 My 25 '22
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Mechanical gearing. C: A. Parsons, S. S. Cook and H. M. Duncan il diags Engineering 115:408-11 Mr 30 '23; Same cond. Engineer 135:349-50 Mr 30 '23; Discussion. Engineering 115:388-9 Mr 30 '23; Engineer 135: 335-6 Mr 30 '23
Method for finding Lewis factors. M. A. Durland. diags Mach 29:958 Ag '23
Methods of machine tool design. A. L. DeLeeuw. diags Am Mach 57:287-9 Ag 24 '22
New instrument known as an odontometer for checking gear tooth profiles and spacing. il Automotive Ind 47:171 Jl 27 '22
New method for determining the effect of speed upon the strength of gear teeth. W. Lewis. diags Mech Eng 44:813-15 D '22
Quality control in gear manufacture. S. O. Bjornberg. il charts Mach 29:623-6 Ap '23
Shadow-testing of gear teeth. A. P. Child. il Sci Am 128:173 Mr '23

Gearing—Testing—*Continued*
Some causes of gear-tooth errors and their detection. K. L. Herrmann. diags Soc Auto Eng J 11:391-7 N '22; Same. Automotive Ind 47:869-73 N 2 '22; Same cond. Am Mach 57: 841-3 N 30 '22; Abstract. Mech Eng 45:50-1 Ja '23; Discussion. Soc Auto Eng J 12:26-7 Ja '23
Strength of internal spur gear teeth. D. T. Hamilton. il diags Mach 29:109-11 O '22
Testing gear and gear-cutting teeth. R. E. Flanders. il Mach 28:817-19 Je '22; Same. Automotive Ind 46:1116-19 My 25 '22
Testing gears by micrometer measurement. S. O. Gordon. diag Am Mach 57:195-6 Ag 3 '22
Testing push fits by spring tension. H. Crawford. il Am Mach 57:582 O 12 '22
Tool engineering. A. A. Dowd and F. W. Curtis. diags Am Mach 59:481-3 S 27 '23
See also Gear testing machines

Gearing, Bevel
Bevel and spiral bevel gear practice. F. H. Colvin. diags Am Mach 56:304-5 F 23 '22
Bevel gear report at American gear manufacturers' association convention. Automotive Ind 47:769-72 O 19 '22
Chamfering ring bevel gears. il Mach 28:537 Mr '22
Computing pitch of bevel gears. G: F. Nordenholt. diag Mach 29:886-8 Jl '23
Cutting bevel gears. F. D. Jones. il diags Mach 28:888-91, 968-71; 29:38-40, 116-22 Jl-O '22
Cutting bevel gears with formed cutters. F. D. Jones. il diag Mach 29:363-5 Ja '23
Cutting spiral type bevel gears. F. D. Jones. il diags Mach 29:204-10 N '22
Dial gage device used with success to test spiral bevel gears. P. M. Heldt. il diags Automotive Ind 48:1088-9 My 17 '23
Gleason works system of bevel gears. F. E. McMullen and T. M. Durkan. diags Mach 28:788-92 Je '22; Same. Automotive Ind 46: 1064-8 My 18 '22; Same. Am Mach 56:849-53 Je 8 '22; Same. Iron Age 109:1670-3 Je 15 '22; Additional tables. Mach 29:226-7 N '22
Hobbing spiral bevel gears. N. Trbojevich. il diags Mach 30:165-76 N '23
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Old English machine for cutting spiral bevel gears. W. Owen. il Am Mach 56:556-7 Ap 13 '22
Spherical gears. C: H. Logue. diags Mech Eng 44:713-19 N '22
Spiral bevel gears. diags Engineer 135:649-52, 677-8 Je 22-29 '23
Spiral bevel gears which can be hobbed. N. Trbojevich. il diags plan Am Mach 59:647-52 N 1 '23

Gearing, Helical. See Gearing, Spiral

Gearing, Herringbone
Cutting double helical or herringbone gears. F. D. Jones. il diag Mach 29:548-53, 613-16 Mr-Ap '23
Design of herringbone gears. N. Leerberg. diags Am Mach 57:597-604 O 19 '22
Double helical or herringbone gears. H. H. Talbot. diags Iron Age 108:1469-73, 1531-3 D 8-15 '21
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New herringbone gear planer. N. Leerberg. diags plan Am Mach 59:561-3 O 11 '23
Proposed standards for herringbone gears. Am Mach 58:183-4 F 1 '23; Same. Mech Eng 45:145+ F '23
Standardization of herringbone gears. Am Mach 56:329-30 Mr 2 '22
Suggestion for herringbone gear standards. N. Leerberg. Am Mach 56:589 Ap 20 '22

Gearing, Non-metallic
Study of material and methods needed in non-metallic gear production. J. E: Schipper. il diags Automotive Ind 48:1084-6 My 17 '23; Discussion. 49:85 Jl 12 '23
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What is the most logical location for non-metallic gears. T. C. Roantree. il Automotive Ind 49:284-5 Ag 9 '23

Gearing, Spiral
Chart to aid the figuring of helical gears. W. C. Steuart. diags Am Mach 56:630-3 Ap 27 '22
Formulas for helical gears. V. L. Sherman. diag Am Mach 59:682 N 8 '23
Helical gears step up the speed of water turbines. diags Power 56:860-1 N 28 '22
High-ratio single-tooth pinion drive. il diags Engineering 113:195 F 17 '22
Measuring the tooth thickness of helical involute gears. E. Wildhaber. diags Am Mach 59:587-8 O 18 '23
Methods of generating helical gears. F. D. Jones. il diags Mach 29:445-50 F '23
New system of helical involute gearing for use on metal planers. F. E. Cardullo. diags Mech Eng 44:816-17+ D '22
One-tooth helical pinion. il Engineer 133:191 F 17 '22
Spiral bevel gears. diags Engineer 135:649-52, 677-8 Je 22-29 '23
See also Gearing, Herringbone

Gearing, Spiral bevel. See Gearing, Bevel

Gearing, Spur
American grinder co. spur gear grinding machine. A. J. Ott and C. L. Ott. il diags Am Mach 59:659-61 N 1 '23
Cutting internal spur gears. F. D. Jones. il diag Mach 28:776-9 Je '22
Cutting spur gears by hobbing. il Mach 28: 716-21 My '22
Inspection of spur gears. D. V. Waters. il diag Mach 28:465-6 F '22
Method for finding Lewis factors. M. A. Durland. diags Mach 29:958 Ag '23
Planing large spur gears. F. D. Jones. il Mach 28:529-32 Mr '22
Some pointers on the use of gears and pinions. G. A. Van Brunt. il diags Ind Eng 81:81-4 F '23
Spherical gears. C: H. Logue. diags Mech Eng 44:713-19 N '22
Spur gears. J. W. Snarry. diags Automobile Eng 12:393-6 D '22
Strength of internal spur gear teeth. D. T. Hamilton. il diags Mach 29:109-11 O '22
Strength of spur gears. M. K. Akers. Ind Management 64:109-12 Ag '22
Testing involute spur gears; the Saurer gear testing machine and the odontometer. M. Estabrook. il charts diag Mech Eng 45:32-4+; Discussion. 81 Ja '23

Gearing, Worm
Cutting worm-gears. F. D. Jones. il diags Mach 29:784-9 Je '23
Horsepower transmitted by worm gearing. Mach 29:563 Mr '23
Worm reduction and change-speed gearing. il diags Engineer 133:352-4 Mr 31 '22; Abstract. Automotive Ind 46:1079 My 18 '22

Gears. See Gearing

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Consult the Agricultural Index for additional material

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Grinding in foundry and steel mill. il plan Mach 29:126-30 O '22

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Cincinnati automatic centerless cylindrical grinding machine. il diag Am Mach 57:78-9 Jl 13 '22
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Grinding machines—*Continued*
Diamond pulley-grinding machine. diags Mach 29:74 S '22; Iron Age 110:590 S 7 '22; Am Mach 57:466 S 21 '22
Elements of production grinding. E. Sheldon. il Am Mach 59:443-7 S 20 '23
Eliminate costly hand fitting and filing; many operations more profitably done on modern milling or grinding machines than by filing. M. H. Williams. il Ry Mech Eng 96:584-7 O '22
Experiment with high speed grinding head. E. Sheldon. il Am Mach 57:732 N 9 '22
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Gardner semi-automatic disk grinding machine. il Mach 30:67-8 S '23; Iron Age 112: 549 Ag 30 '23
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Grinder finishes machine ways. A. R. Ludewigs. il diags Iron Tr R 71:1415-16 N 23 '22
Grinding commutators and collector rings—types of grinding machines. E. H. Thompson. diags Power 56:455-8 S 19 '22
Grinding fixture for universal joint cage. J. A. Honegger. diags Mach 30:99-100 O '23
Grinding hardened gear teeth; abstract. il diag Mech Eng 44:265 Ap '22
Grinding in foundry and steel mill. il plan Mach 29:126-30 O '22
Grinding links and link blocks. J. M. Hamm. diags Ry Mech Eng 96:273-4 My '22
Grinding machine in the railroad shop. F. A. Stanley. il Am Mach 56:64-6 Ja 12 '22
Harris improved automatic hob grinding machine. il Mach 28:508-9 F '22; Iron Age 109: 344 F 2 '22; Ry Mech Eng 96:111-12 F '22
Harris no. 5 semi-automatic hob grinding machine. il Iron Age 111:891 Mr 29 '23
Harris no. 10 semi-automatic hob and form cutter grinding machine. il Am Mach 57:502-3 S 28 '22
Heald hydraulically operated internal grinding machine. il Am Mach 58:311-12, 779 F 22, My 24, '23; Iron Age 111:608 Mr 1 '23; Mach 29:569-70, 825 Mr, Je '23
Heald no. 50 cylinder grinding machine. il Am Mach 56:975 Je 29 '22; Iron Age 109: 1812 Je 29 '22; Automotive Ind 47:70 Jl 13 '22; Mach 28:915-16 Jl '22
Heald no. 25 automatic ring-grinding machine. il Am Mach 56:151-2 Ja 26 '22; Automotive Ind 46:184-5 Ja 26 '22; Iron Age 109: 216 Ja 19 '22; Mach 28:495-6 F '22
Heavy floor grinding machine. diag Foundry 50:76-7 Ja 15 '22
High power surface grinder a useful shop tool. il Ry Mech Eng 96:95-7 F '22
Home made car wheel grinder. il Ry Mech Eng 96:631 N '22
Homemade utility bench grinder. J. V. Romig. diags Pop Mech 38:466-7 S '22
Improved portable grinding devices for truing commutators. il Power 57:599 Ap 17 '23
Internal grinding and its advantages. F. W. Curtis. il diags Am Mach 58:653-6 My 3 '23
Internal-grinding machine for quantity production. il Pop Mech 38:420 S '22
Landis heavy-duty roll grinding machine. il Am Mach 57:354 Ag 31 '22; Mach 29:65-6 S '22
Lapping outfits for cylinder bores and crankshaft bearings. il Automotive Ind 45:31 Ja 5 '22
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Lumsden twin-table surface grinder. il Engineering 115:459-60, 466 Ap 13 '23
M.S.O. automatic internal cylinder grinding machine. il Am Mach 56:981 Je 29 '22
Machines for grinding track work made by the Automatic machine co. il Iron Age 112: 85-6 Jl 12 '23
Madison cylinder grinding machine. il Am Mach 57:816 N 23 '22
New machine grinds wrist pin holes simultaneously. P. M. Heldt. il diags Automotive Ind 45:1269-70 D 29 '21
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Norton grinding machines. il Mach 28:926-7 Jl '22
Norton model 81-B crankpin grinding machine. il Am Mach 57:37 Jl 6 '22
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Pocket grinders and magazine grinders. J: J. Case. Paper 30:84-6+ Ap 19 '22; Same. Paper Tr J 74:261+ Ap 13 '22
Pratt & Whitney gear tooth grinding machine. E. Sheldon. il Am Mach 59:535-40 O 11 '23
Press feeding and grinding attachments. il Mach 29:464-5 F '23
Railway shop grinding practice in England. Ry Mech Eng 96:325-6 Je '22
Redesign grinding machines to increase rate of production. il Automotive Ind 48:526-7 Mr 1 '23
Reed-Prentice engraver's cutter grinding machine. il Am Mach 58:955 Je 28 '23; Iron Age 111:1838 Je 28 '23
Reed-Prentice planer-type grinding machine. il Am Mach 58:200-1 F 1 '23
Rockford radius, internal and surface grinder for railroad shop work. il Iron Age 112:262 Ag 2 '23; Mach 29:995-6 Ag '23; Ry Mech Eng 97:659-60 S '23
S.H.D. automatic universal tool-grinding machine. il diags Engineering 115:396-7 Mr 30 '23; Am Mach 57:120-1 Jl 20 '22
Sapihl portable electric grinding machines. il Iron Age 110:864 O 5 '22; Am Mach 57:899 D 7 '22
Springfield mfg. co. develops two types of surface grinders. il Iron Tr R 71:1639 D 14 '22
Systematic tool grinding conserves workers' time. il Iron Tr R 73:814 S 20 '23
Twist drill grinders manufactured by Blau & co., Vienna. il Iron Age 111:1785-6 Je 21 '23
Valve stem grinding attachment with magazine feed. il Mach 29:691 My '23
Van Norman piston and valve grinding machine. il Am Mach 55:776-7 N 10 '21; Mach 28:326-7 D '21; Iron Age 108:1216 N 10 '21
Van Norman Re-li-o no. 2 bench wet grinding machine. il Am Mach 56:570-1 Ap 13 '22
Vertical grinder with 6-ft. rotary table. il diags Engineering 113:520-1, 524 Ap 28 '22
Vertical-spindle type cylinder grinder brought out by Hy-way service co. il Iron Age 110:1345 N 23 '22
Williams vertical cylinder grinding machine. il Am Mach 57:745-6 N 9 '22; Mach 29:235-6 N '22; Automotive Ind 47:1128-9 D 7 '22
Williams, White & co. duplex rotary grinding machine. il Iron Age 112:8 Jl 5 '23

See also Burrs; Grinding wheels

Grinding wheels
Cleaning steel castings. H. R. Simonds. il Foundry 51:486-90 Je 15 '23
Difference between glazing and loading of a grinding wheel. il Brass W 19:12 Ja '23
Dressing and truing of abrasive wheels for surface grinding machines. F. O. Wyse. il diags Am Mach 58:501-2 Ap 5 '23
Economy in grinding wheel dressing and truing. M. L. Climo. Mach 30:201 N '23

Grinding wheels—*Continued*
Efficiency of grinding wheels. Mach 29:468 F '23
Elements of production grinding. E. Sheldon. il Am Mach 59:209-11, 277-80 Ag 9, 23 '23
Grinding in foundry and steel mill. il plan Mach 29:126-30 O '22
Grinding wheel breakage. H. W. Wagner. Brass W 19:326 O '23
Satisfactory home-made wheel grinder. diags Elec Ry J 62:264 Ag 18 '23
Selecting wheels for rough grinding. E. D. Bishop. Iron Tr R 71:586 Ag 31 '22
Selection and use of diamonds for dressing grinding wheels. W. M. Robinson. diags Mach 30:133-6 O '23
Setting grinding wheels for sharpening hobs. H. E. Harris. diag Mach 28:992-3 Ag '22
Taking care of abrasive wheels. S. M. Howard. Factory 27:770+ D '21
Truing and dressing grinding wheels. Brass W 18:324-5 N '22
Turning vitrified abrasive wheels with a steel tool. A. Lambercier. diags Am Mach 56: 952 Je 29 '22
Wheel-trueing attachment for screw-thread grinding. Engineering 113:76, 78 Ja 20 '22
See also Grinding machines

Accidents
Grinding wheel breakage and its causes. H. E. Jenks. diags Am Mach 57:98-100, 144-6 Jl 20-27 '22

Manufacture
Elements of production grinding. E. Sheldon. il Am Mach 59:131-3 Jl 26 '23
Handling materials economically; eastern grinding wheel manufacturer uses special trucks and conveyors for transporting abrasives and wheels. B. A. Hildebrant. il Iron Tr R 71:1069-71 O 19 '22
Progress in grinding wheel manufacture. P. H. Walker. Mach 30:102-3 O '23

Safety devices and measures
National grinding wheel code. G. E. Sanford. Safety Eng 45:166-8 My '23
Revise safety code for abrasive wheels. Foundry 50:496 Je 15 '22
Safety precautions in the use of manufactured abrasive wheels. diags Int Labour R 8:126-35 Jl '23

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Grinding wheel nomenclature. H. A. Plusch. Mach 28:979-80 Ag '22

Testing
Firm conducts cast iron grinding tests. A. W. Forbes. Foundry 50:996 D 15 '22
Testing abrasive wheels. H. H. Lavercombe. il Am Mach 57:961-2 D 21 '22

Grindstones
Grindstone and pulpstone production in 1921. Iron Tr R 71:790 S 21 '22
See also Commutator stones

Grit chambers. See Sewage disposal—Activated sludge method

Grizzlies
Self-cleaning revolving grizzly which requires little power to drive. il diags Coal Age 23: 822-3 My 17 '23

Grocery stores. See Company stores; Grocery trade

Grocery trade
Again, the wholesale grocer. Ptr Ink 121:20 D 7 '22
Are grocery specialty salesmen altogether useless? Ptr Ink 122:89-90+ Ja 18 '23
Building a big volume out of small opportunities. T. E. Burns. il System 42:144-6 Ag '22
Building a food products market through demonstrators. Ptr Ink 123:8+ Ap 5 '23
Can demonstrations pay where people buy mostly by phone? Ptr Ink 119:44+ Je 29 '22
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How salesmen are paid in the coffee roasting and grocery trades. Ptr Ink 120:145-6+ S 21 '22
Mail-order grocery chain stores advertised to farmer. G. A. Nichols. Ptr Ink 123:25-7+ Ap 19 '23
Management policies that keep our business growing. F. C. Letts. il System 43:21-5+ Ja '23
Men and methods; Fred W. Albrecht. F. B. Barton. System 41:687-9 Je '22
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See also Canned food; Chain stores; Company stores; *also* Calumet baking powder company

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Advertising
Advertised products are Americanizing immigrants. J. A. Murphy. il Ptr Ink M 7: 38-9+ Jl '23
Bigger business from co-operation in buying and advertising. H. E. Martin. Ptr Ink 118:77-8+ Ja 12 '22
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Develops food label to combat grocery cut-price evil. Ptr Ink 122:25-6 F 15 '23
Hair nets as an advertising leader in grocery stores. J. True. Ptr Ink 120:49-50 Jl 27 '22
How a grocery wholesaler is preparing for national advertising. S. C. Lambert. Ptr Ink 121:65-6+ N 16 '22
Plussing the value of the advertising. J. W. Herscher. Ptr Ink 121:170+ N 23 '22
Van Camp advertising to sell the complete line. A. Belden. Ptr Ink 124:125-6+ Jl 5 '23
Wholesale grocer advertises his private brands. Ptr Ink 123:118+ My 10 '23
See also Coffee—Advertising; Flour trade—Advertising

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Merchandising low-price products through grocery stores. Ptr Ink 120:73-4+ Jl 13 '22

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Operation of hydraulic power plants; removing ice and trash from water. il diags plan Power Pl Eng 26:363-5 Ap 1 '22
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Queenston-Chippawa development. il diags map plan Power Pl Eng 26:760-7 Ag 1 '22
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Manitoba

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Mexico

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Hydroelectric plants—*Continued*

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Niagara falls

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When headlight meets headlight. Ry Age 73: 703-4, 784 O 14, 28 '22

Locomotive industry

See also Baldwin locomotive works

Statistics

Locomotive market in quiescent state during 1921. F. W. Kraeger. il Ry Age 72:124-6 Ja 7 '22
Locomotives in 1921. il (supp) diags Engineer 133:10-12, 14 Ja 6 '22

France

What is happening to the locomotive industry of France? H: Obermeyer and A. L. Greene. il Am Mach 58:77-80 Ja 11 '23

Germany

German locomotive industry. H: Obermeyer and A. L. Greene. il Am Mach 58:835-40 Je 7 '23

Great Britain

Future of the British locomotive trade. E. L. Ahrons. Engineer 133:350-1 Mr 31 '22

Locomotive inspection, Bureau of. See Interstate commerce commission—Bureau of locomotive inspection

Locomotive shops
Burlington builds new locomotive shops. il diag plan Ry Age 75:611-15 O 6 '23
Locomotive scheduling at the Silvis shops. I. W: Chubb. il chart Am Mach 58:941-2 Je 28 '23
Erecting shop practice at Battle Creek. M. H. Westbrook. il diags Ry Mech Eng 97: 584-91 Ag '23
Erie improves its erecting shops at Hornell, N.Y. il diags Eng N 90:952-3 My 31 '23
Expediting enginehouse work at Hoboken. il diag Ry Mech Eng 96:301-4 Je '22
High points at Reading locomotive shops. il diags Ry Mech Eng 96:465-9, 523-6 Ag-S '22
How locomotives are repaired on Ford's railway. F: H. Colvin. il diags Am Mach 58: 133-6, 179-83 Ja 25-F 1 '23
How one road recovered from the shop strike; C. & A. shops. Ry Age 74:1439-40 Je 16 '23
How to reduce time required for repairs. F. Koop. Ry R 73:606-7 O 27 '23
Locomotive scheduling at the Silvis shops. L. C. Bowes, H. K. Robinson and G. F. Sandstrom. il Ry Mech Eng 97:417-18, 579-81, 643-5, 699-700, 767 Jl-N '23
Modern medium-size shop at Cheyenne. il plans Ry Mech Eng 97:325-33 Je '23
Money saved by milling keyways; with cost tables. M. J. Rogers. il Ry Mech Eng 96: 157-8 Mr '22
New Burlington locomotive shop at Denver. A. H. Ostberg. Ry Age 74:1647-9 Je 23 '23; Same, with plans. Ry Mech Eng 97:485-9 Jl '23
New Mallet shop at Port Covington, Baltimore has interesting features. il plan Ry Age 74:1511-13 Je 23 '23
New shops for the Burlington at Denver. diags plan Ry R 71:611-13 N 4 '22
Ordnance plant makes locomotive repairs. il plan. Ry Mech Eng 97:615-18 S '23; Same abr. Ry Age 75:591-3 S 29 '23

Locomotive shops—*Continued*
Overcoming an objectionable column where crane service was desired. N. McCleod. diags Ry Mech Eng 95:713-14 N '21
Practical methods for planning work; repairing locomotives and freight cars in quantities. W: B. Ferguson. il Management & Adm 6:185-90 Ag '23
Repair shop of the M. K. T. at Waco, Tex. has all facilities under one roof. il diag map plan Ry Age 74:1419-22 Je 16 '23; Ry R 73:1-6 Jl 7 '23
Report on shops and engine terminals. Ry Age 74:1639-46 Je 23 '23; Same. Ry Mech Eng 97:477-84 Jl '23; Abstract. Ry R 72:1151-3 Je 30 '23
Santa Fe completes modern shops at Albuquerque. il diag plans Ry Age 73:237-42 Ag 5 '22
Santa Fe Ry. has large steel-frame shop with glass walls. il plans Eng N 89:12-15 Jl 6 '22
Shop arrangement to minimize delays. F. Fernstrom. Ry R 73:607-8 O 27 '23
Standardization of locomotive repair parts. M. H. Williams. il diags Ry Mech Eng 97:341-7, 581-3, 645-7 Je, Ag, S '23
Straight line method for locomotive shops. L. Richardson. il charts plan Ry R 73:339-45 S 8 '23; Same. Ry Age 75:767-70 O 27 '23; Same. Ry Mech Eng 97:714-18 O '23; Discussion. Ry Age 75:897-8, 1046 N 17, D 8 '23
What a small shop means at engine terminal; results obtained by the C. M. & St P. H. W. Williams. diags Ry Age 74:1441-3 Je 16 '23

See also Locomotive terminals; Locomotives—Repair; Railroads—Shops

Accounting

Cost system of locomotive brake repairs. W. H. Clegg. Ry Mech Eng 97:763-7 N '23

Equipment

Automatic telephone expedites communication at large locomotive shops. il Ry Age 74: 1007-8 Ap 21 '23
Conveniently located lye vat. il diags Ry Mech Eng 97:183-4 Mr '23
Erecting shop practice on the Southern Pacific. H. C. Venter. il diags Ry Mech Eng 97:654-8 S '23
Locomotive shop served by 180-ton crane: M.-K.-T. R.R. il diags plan Eng N 91:762-4 N 8 '23
Shop improvements under way at Richmond Hill. il diags Ry Mech Eng 97:179-82 Mr '23
Standard tool gages. R. D. Fletcher. il diags Ry Mech Eng 97:705-6 O '23
Three locomotive shop devices. E. A. Miller. diags Ry Mech Eng 95:702 N '21
Tool maintenance and standardization. O. D. Kinsey. Ry R 73:608-9 O 27 '23

Locomotive smoke. See Locomotives—Smoke problem

Locomotive sparks
Fire losses, locomotive sparks. L. W. Wallace. 203p Barr-Erhardt press, New York '23

Locomotive tenders
Arc-welded locomotive tender underframe. il Engineer 133:580 My 26 '22
Tender booster increases tonnage 31 per cent. il diags Ry Age 74:1433-6 Je 16 '23; Same. Ry Mech Eng 97:409-12 Jl '23
Tender tractor—a new booster development. il diags Ry R 72:1000-9 Je 16 '23

Springs

Volute journal box springs. il diag Ry Mech Eng 96:561 O '22

Locomotive terminals
Are there too many idle locomotive hours? Ry R 70:413-15 Mr 25 '22; Discussion. 71: 10-12 Jl 1 '22
Canadian National increases facilities at Moncton. S. B. Wass. diag map Ry Age 73: 463-6 S 9 '22; Same. Eng & Contr 58:267-9 S 20 '22
Change in engine districts improves operation. il map Ry Age 75:661-3 O 13 '23
Design of railway locomotive terminals. W. T. Krausch. W Soc E J 28:386-90; Discussion. 390-4 S '23
Drop pits at terminals on the South African railways. J: D. Rogers. il Ry Mech Eng 95:677-8 N '21
Engineering requirements of a locomotive terminal. W. T. Krausch. Ry R 72:495-9 Mr 17 '23; Same. Eng & Contr (Ry) 59:891-6 Ap 18 '23; Same cond. Ry Age 74:807-8 Mr 24 '23
Erie builds new enginehouse at Jersey City, N.J. il diags plan Ry Age 73:877-81 N 11 '22
Gravity freight yard at Canton, Ohio; W. & L. E. Ry. diags plan Eng N 90:746-9 Ap 26 '23
Innovation in locomotive terminal design. diags plans Ry Age 74:281-4 Ja 27 '23; Same. Ry Mech Eng 97:113-16 F '23
Is this the answer to the locomotive terminal problem? diags plans Ry R 72:176-83 Ja 27 '23; Discussion. G: W. Armstrong. 72:552 Mr 24 '23
Locomotive terminals: mechanical department requirements. L. K. Sillcox. W Soc E J 28:379-85 S '23; Same. Ry Age 74:759-62 Mr 17 '23; Same. Ry R 72:490-5 Mr 17 '23; Same cond. Ry Mech Eng 97:233-6 Ap '23
New engine terminal facilities for the Pere Marquette railway, at Saginaw, Mich. il diags plans Ry R 69:783-9 D 10 '21
New locomotive facilities at Clifton Forge, Va. il diags Ry Age 72:955-8 Ap 22 '22
New York Central engine terminal at Syracuse. il diags plans Ry Mech Eng 96:474-7 Ag '22
Operating requirements of a locomotive terminal. R. N. Begien. Ry Age 74:762-5 Mr 17 '23; Same. Ry R 72:486-90 Mr 17 '23; Same. Eng & Contr (Ry) 59:1128-33 My 16 '23; Same. W Soc E J 28:373-8 S '23
Report on shops and engine terminals. Ry Age 74:1639-46 Je 23 '23; Same. Ry Mech Eng 97:477-84 Jl '23; Excerpts. Eng & Contr (Ry) 60:595-601 S 19 '23; Abstracts. Ry R 72:1151-3 Je 30 '23; Eng N 91:424-5 S 13 '23
Requisite facilities for a locomotive terminal. P. L. Mullen. Ry R 72:112-14 Ja 13 '23
Shop and terminal construction in 1922. Ry Mech Eng 97:80-1 F '23
Southern Pacific builds unique engine houses. diags Ry Age 73:105-6 Jl 15 '22
Terminal engineering of the past year. il plan Ry R 72:430-45 Mr 10 '23
Unusual ash pits feature new engine terminal of the New York Central at Solvay. il diags plans Ry Age 73:154-9 Jl 22 '22

See also Ash pits; Locomotive shops; Roundhouses

Equipment and supplies

Plan for locomotive terminal equipment trust. Ry R 72:901-2 My 26 '23

Locomotive works
Germany's great locomotive works: the Borsig organization and methods. G. L. Carden. Iron Age 110:1623-4 D 21 '22
Scotswood locomotive works: Sir W. G. Armstrong, Whitworth and co. il Engineering 113:371 Mr 24 '22

See also Baldwin locomotive works

Locomotives
American locomotives a success in France. M. Lunier. il Ry Age 75:679-80 O 13 '23; Same. Ry Mech Eng 97:679-80 O '23
American locomotives for the Manila railroad. il Ry Age 72:387-8 F 11 '22
American locomotives for the Philippines. il Ry R 69:756-9 D 3 '21
Are we due for a radical change in locomotive construction? A. F. Stuebing. Ry Age 74: 323-5 F 3 '23; Same. Ry Mech Eng 97:154-6 Mr '23
As to the locomotive—what next; abstracts. G. M. Basford. diags Ry Age 74:553-8 Mr 10 '23; Ry R 72:403-6 Mr 10 '23; Ry Mech Eng 97:212-16 Ap '23
Baldwin locomotives on Brazilian engineering project. il Ry R 71:370-1 S 16 '22
Les bogies et la suspension des locomotives à grande vitesse. Génie Civil 80:189-90 F 25 '22

Locomotives—*Continued*
Bogies (trucks), axles and springs of locomotives; abstracts of reports presented at the International railway congress. Engineering 113:546-7 My 5 '22; Engineer 133:405 Ap 14 '22
Canadian National Mountain type locomotive. C. E. Brooks. il Ry Age 75:203-5 Ag 4 '23; Same. Ry Mech Eng 97:554-7 Ag '23
Catalogue of the mechanical engineering collection in the United States National museum. C. W. Mitman. (Bul. 119) 118p Smithsonian institution, Washington '22
Characteristics of three-cylinder locomotives. F. Meineke. diags Ry Mech Eng 96:617-19 N '22; Discussion. H. Holcroft. 97:5-6 Ja '23
Chinese government railways; heavy gradient haulage on the Peking-Suiyuan railway. il Engineer 135:34-5, 42 Ja 12 '23
Condensing and utilisation of exhaust steam in locomotives. diags Engineer 135:279-81, 303-4 Mr 16-23 '23
Consolidation locomotive for the Polish State railways. J. Dabrowski. il Ry Mech Eng 97:623 S '23
Consolidation type for both freight and passenger service. G: Bulkeley. il diags Ry R 71:779-83 D 2 '22
Essentials of progressive motive power policy. G. M. Basford. Ry Age 72:177-80 Ja 14 '22; Same. Ry Mech Eng 96:71-4 F '22; Excerpts. Ry R 70:43-8 Ja 14 '22
Factors in the business of owning locomotives. C. B. Peck. Ry Age 72:471-4 F 25 '22; Same. Ry Mech Eng 96:135-8 Mr '22; Same cond. Ry R 70:270-4 F 25 '22
Fifty more new freight locomotives for the Southern Pacific. il Ry R 70:897-900 Je 17 '22
Foreign railway practice (new features in railway traction methods); abstracts. M. J. Carlier. Engineering 113:651 My 26 '22; Engineer 133:582 My 26 '22
Four-cylinder 4-6-0 type locomotive; Great Western railway. il diag Engineering 116: 236 Ag 24 '23; Engineer 136:197, 202 Ag 24 '23
4-6-2 type passenger locomotive for the Great Northern railway. il diags Engineering 113: 454-6 Ap 14 '22
French records for weight per locomotive horsepower. il Ry Age 73:617-18 S 30 '22
Garratt articulated locomotives. il Ry Age 74: 959-60 Ap 14 '23; Same. Ry Mech Eng 97:276 My '23
Great Northern railway—Pacific type passenger engine. il diag Engineer 133:412-13, 416 Ap 14 '22
Has the steam locomotive reached its limit of size for ordinary uses; views of a typical group of railroad men. Ry R 71:597-8 O 28 '22
Heavy Mallet locomotive for Pekin-Suiyuan. il diags Ry Mech Eng 96:305-7 Je '22
How far can a locomotive jump? F. W. Wilson. il Pop Mech 38:674-6 N '22
Improved Mikado for the Michigan Central. Ry R 70:910-11; 71:117-18 Je 17, Jl 22 '22; Ry Age 73:171-2 Jl 22 '22; Ry Mech Eng 96:437-8 Ag '22; Mech Eng 44:617 S '22
International railway association; economic production and use of steam in locomotives. Engineer 133:391-2; 134:324 Ap 7, S 29 '22
Is the steam locomotive out of date? L. G. Coleman. Ry R 72:107-10 Ja 13 '23; Same. Eng & Contr (Ry) 59:457-60 F 21 '23
L. and N.E.R.—three-cylinder locomotive—details. diags (supp) Engineer 135:452 Ap 27 '23
Largest locomotive ever exported. diags Ry R 70:909-10 Je 17 '22
Latest locomotive types for the Erie R. R. il Ry R 72:986-8 Je 16 '23
Locomotive catechism. R. Grimshaw. 30th ed., rev. and enl. 958p Henley '23
Locomotive development. S: M. Vauclain. Ry R 70:sup39-40 Je 10 '22
Locomotive improvements. G: M. Basford. Ry R 70:sup40-2 Je 10 '22
Locomotive types from a transportation viewpoint. J. F. Porterfield. Ry R 70:565-6 Ap 22 '22; Same. Ry Age 72:976 Ap 22 '22
Locomotives for Brazilian centennial exhibition. il Ry Age 74:467-8 F 24 '23
Locomotives for the Andaluces railway of Spain. il Ry Age 71:1323-4 D 31 '21
Locomotives of 1922. il (supp) diags Engneer 135:4-6 Ja 5 '23
Monster locomotive pivots on front truck. il Pop Mech 40:29 Jl '23
Mountain and Mikado types for the Frisco. il diags Ry Mech Eng 97:357-9 Je '23; Same, without diags. Ry Age 74:1207-8 My 19 '23
New Baldwin locomotives for short line railroads. il Ry R 70:213-14 F 18 '22
New Baltic tank locomotives. diags (supp) Engineer 134:502 N 10 '22
New locomotive specialties developed on the Union Pacific. diags Ry R 71:73-6 Jl 15 '22
New locomotives for the Northern Pacific. il diags Ry Mech Eng 95:679-81 N '21
New motive power for railways of Mexico. il Ry Age 71:937-9 N 12 '21
New 180-ton passenger locomotives for the New Haven. W. J. Clardy. Elec Ry J 61: 412 Mr 10 '23
New York Central three-cylinder locomotive. il Ry Mech Eng 97:743-4 N '23; Same. Ry Age 75:821-2 N 3 '23; Discussion. Ry Mech Eng 97:795-6 D '23
Notable shipment of locomotives. il Locomotive 34:111-12+ O '22
Nouvelles locomotives Pacific, à deux cylindres, simple expansion et surchauffe, de la Compagnie des chemins de fer du Midi. diags Génie Civil 80:282 Mr 25 '22
0-10-0-type locomotive for Russia. il Engineering 112:695, 698 N 18 '21
0-12-0 type locomotives for Bulgarian State Rys. D. L. Kiss. il Ry R 73:126-7 Jl 28 '23
Old British-Canadian locomotive. il Engineer 134:349 O 6 '22
Pacific type for passenger and fast freight; latest design for Atlantic Coast Line. il Ry Age 73:947-8 N 18 '22; Same abr. Ry R 71: 704-5 N 18 '22
Powerful Consolidation locomotive for the L. & N. E. il Ry Age 73:1197-8 D 23 '22; Same. Ry Mech Eng 97:7-8 Ja '23
Practical example of carbon-vanadium steel use. R. J. Finch. il diags Ry R 73:532-4 O 13 '23
Present-day working of the locomotive department of a railway, from the commercial and financial aspect. R. H. Whitelegg. Engineering 114:753-6 D 15 '22
R. W. Thomson and road locomotion. R. E. Crompton. Engineer 133:670-1 Je 16 '22
Railway electrification. V. L. Raven. Engineering 113:25-6, 39-43, 48, pl 2 Ja 6-13 '22; Same cond. Engineer 132:673-4, 711-13 D 23-30 '21; Same cond. Elec R (Lond) 89:906-7; 90:27-9 D 30 '21-Ja 6 '22; Abstract. Electrician 88:10-11 Ja 6 '22; Discussion. Engineer 132:700 D 30 '21
Railway electrification and Garratt locomotives. il Engineer 133:188-9 F 17 '22
Recent locomotive practice on the Caledonian railway. E. C. Poultney. il diags (supp) Engineer 132:474-6, 499-500, 501 N 4-11 '21
Recent tendencies in locomotive development. R. C. Augur. il Ry Age 72:49-50 Ja 7 '22
Reducing locomotive fire hazards. Ry Mech Eng 96:131-2 Mr '22
Report on locomotive construction. Ry Age 74:1591-5 Je 23 '23; Same. Ry Mech Eng 97:503-7 Jl '23; Discussion. Ry Age 74: 1595-1600 Je 23 '23; Same. Ry Mech Eng 97:507-12 Jl '23
Report on locomotive design and construction. Ry R 72:1158-63 Je 30 '23
Rock Island mountain type handles heavy train. il Ry Age 71:1187-8 D 17 '21
73-year-old locomotive in service in England. Eng & Contr 57:591 Je 21 '22
Simple Mallet type locomotives for the C. & O. Ry. diag Ry R 72:645-6 Ap 14 '23
Six-coupled tank locomotives for India. il diags Engineer 136:172-3 Ag 17 '23
Six recent locomotives for American railways. il Am Mach 59:510-11 O 4 '23
Some recent developments in locomotive construction. G. Greenough. Ry R 71:897-8 D 23 '22
Some representative Mikado type locomotives built in 1922. Ry R 72:139-41 Ja 20 '23

Locomotives—*Continued*
Southern railway (S.E. and C.) three-cylinder locomotive. il diags Engineer 135:200-1 F 23 '23
Standard 2-10-0 freight locomotive for German railways. D. L. Kiss. il diags Ry R 72: 34-8 Ja 6 '23
Superheater tank locomotives in suburban service. F. W. Brewer. Engineer 135:255-6 Mr 9 '23
Super-locomotive with the latest improvements. il Sci Am 127:385 D '22
Tank engines of the Paris-Orleans railway. il Engineer 136:236 Ag 31 '23
3-cylinder Mikado—newest German type. il diags Ry R 72:757-60 My 5 '23
Three notable locomotives which mark the trend of railroading. il Sci Am 129:15 Jl '23
Timothy Hackworth and the locomotive. R. Young. Engineer 133:251-2 Mr 3 '22; Discussion. 133:279, 296, 330 Mr 10-24 '22
Tractive power of Mallet locomotives. Ry Age 74:1591-2; Discussion. 1595-6 Je 23 '23; Same. Ry Mech Eng 97:503-4, 507-8 Jl '23; Same cond. Ry R 72:1163 Je 30 '23
Train of locomotives half a mile long. il Pop Mech 38:165 Ag '22
Transport and its indebtedness to science. H: Fowler. Engineering 116:378-9; Discussion. 361-2 S 21 '23
2-8-2 type locomotives for the Nickel Plate. il diags Ry Age 71:1002-3 N 19 '21; Same. Ry Mech Eng 95:737-8 D '21
Types of freight locomotives ordered in 1922. Ry Mech Eng 97:208 Ap '23
Ultimate locomotive. Ry R 71:349-50, 601 S 9, O 28 '22
Una-flow locomotive—a practical possibility. J. Stumpf. il diags Ry R 71:333-8 S 9 '22
Veteran locomotive. il Sci Am 129:239 O '23
Which is most interesting to railroad men today—car or locomotive design; views of a typical group of railroad men. Ry R 71: 868-71 D 16 '22
Willamette geared locomotives. il Ry Age 74: 809 Mr 24 '23
World's largest passenger locomotives. il Pop Mech 39:694 My '23

See also Electric locomotives; Locomotive boilers, and other headings beginning Locomotive; Motor cars (railroad); Railroads; Railroads—Rolling stock; Roundhouses; Steam engines; Stokers, Mechanical; Tractors; *also* Railway and locomotive historical society

Axles

Deflection testing of locomotive axles; universal 100-ton testing machine. il Engineer 134:279-80 S 15 '22
Manufacturing car and locomotive axles. N. S. Frohman. il Am Mach 57:473-7 S 28 '22

Blower system

Steam required in a blower line in a railroad roundhouse. Heat & Ven 19:48-9 Ja '22

Boosters

Booster for tender trucks developed on D. & H. il charts Ry Age 73:145-7 Jl 22 '22; Same. Ry Mech Eng 96:441-3 Ag '22
Booster locomotives; utilisation of the main engine's exhaust steam. C: R. King. Engineer 136:403 O 12 '23
Booster on English passenger power. il Ry R 73:236-7 Ag 18 '23
Boosters for locomotives. il Engineer 135:419-20 Ap 20 '23
Delaware & Hudson tests a new locomotive booster. Eng N 91:13 Jl 5 '23
Dynamometer tests of the locomotive booster. il charts Ry Age 73:511-14 S 16 '22; Same. Ry Mech Eng 96:562-5 O '22
New booster suspension and locomotive trailing truck. il diags Ry R 72:205-9 F 3 '23
Tender booster increases tonnage 31 per cent. il diags Ry Age 74:1433-6 Je 16 '23; Same. Ry Mech Eng 97:409-12 Jl '23
Tender tractor—a new booster development. il diags Ry R 72:1000-9 Je 16 '23

See also Locomotives—Starting

Cleaning

Development of mechanical handling devices in Germany during and since the war. G: F: Zimmer. diags Eng & Ind Management 6:645-6 D 1 '21

Cost of operation

Distribution of power; its effect on operating costs. Ry Age 73:901-2 N 11 '22; Same. Ry R 71:650-1+ N 11 '22; Same. Ry Mech Eng 96:689-91 D '22
Is mechanical firing reducing the cost of train operation; abstracts. Ry Age 73:902-4 N 11 '22; Ry R 71:656-8 N 11 '22
Operating results show savings by rebuilt power. H. F. Grewe. il Ry Age 72:423-4 F 18 '22

Counterbalancing

Development of counterbalancing in British locomotive practice. F. W. Brewer. Engineer 133:298, 300 Mr 17 '22

Crossheads

Babbitting crosshead shoes. diags Ry Mech Eng 97:772-3 N '23
Lathe dog or driver for crosshead pins. diags Ry Mech Eng 97:711-12 O '23
Machining crosshead shoes. C: F. Henry. diags Am Mach 58:850-1 Je 7 '23
Milling forty driving-box wedges in eight hours. F. H. Colvin. il diags Am Mach 59:183-4 Ag 2 '23
Rogatchoff adjustable crosshead. il diag Ry Age 71:1276 D 24 '21; Ry R 70:309-11 Mr 4 '22
Unique type of crosshead for heavy locomotives. il diags Ry Mech Eng 97:268-70 My '23
Use and abuse of the crosshead key. W. O. Moody. Ry R 73:12-13 Jl 7 '23

Cut-off

Cut-off control in operation on the Big Four. E. S. Pearce. Ry R 70:295-6 Mr 4 '22
Cutoffs with varying valve travels. R. Grimshaw. diag Power 56:892 D 5 '22
Operation of automatic locomotive cut-off control. il diags Ry R 72:677-90 Ap 21 '23
Waste of steam with extremely long cut-off. P. D. Anderson. diag Ry Mech Eng 96:496 S '22

Design

Adhesion and rack locomotive for Sumatra. S. Abt. il diags plan Ry Age 72:263-6 Ja 28 '22; Same. Ry Mech Eng 96:127-30 Mr '22
Alloy steel reduces weight of locomotive parts. R. J. Finch. diags Ry Mech Eng 96:569-71 O '22
British and American locomotive design and practice. P. C. Dewhurst. diags Engineering 113:373-7, 405-8 Mr 24-31 '22; Abstract. Engineer 133:335-6 Mr 24 '22; Discussion. Engineering 113:366-8, 398-401 Mr 24-31 '22; Engineer 133:321-2, 356, 357-8, 377-8 Mr 24-Ap 7 '22
C. B. & Q. R. R. mountain type locomotive designed to burn lignite. il (supp) diags Ry R 72:992-9 Je 16 '23
Design for an express locomotive. diags Engineer 135:429, 506-7, 532-3, 660 Ap 20, My 11-18, Je 22 '23
Design of engine and tender drawbars. H. J. Coventry. Ry Mech Eng 97:87-9 F '23
Design of segmental and sector counterbalance weights. E: L. Coster. diags Mech Eng 45:611 O '23
Designing locomotives for economical operation. J. Partington. il Ry Age 71:899-903 N 5 '21; Same. Ry Mech Eng 95:673-7 N '21; Same. Engineering 112:743-5 N 25 '21; Same. Engineer 133:446-7 Ap 21 '22; Same cond. Ry R 69:599-602 N 5 '21; Same abr. Mech Eng 43:729-30 N '21; Discussion. Ry Age 71:1151-2 D 10 '21; Ry Mech Eng 96: 18-20 Ja '22; Engineer 133:477, 618-19, 690; 134:33-4 Ap 28, Je 2, 23, Jl 14 '22
4-8-2 type locomotive for the Denver and Rio Grande Western railroad. diags Engineering 116:26-7, pl 1-3 Jl 6 '23
G.N.R. three-cylinder Pacific locomotive; drawings. diags plan (supp) Engineer 135: 90, 92 Ja 26 '23

Locomotives—Design—*Continued*
Heavy Mikado type locomotives for D. L. & W. il diags Ry Age 74:511-13 Mr 3 '23; Same. Ry Mech Eng 97:142-5 Mr '23; Same cond. Mech Eng 45:311-12 My '23
Hungarian railways adopt advanced locomotive design. D. L. Kiss. il diags plan Ry R 70:287-91 Mr 4 '22; Abstract. Mech Eng 44:324 My '22
Improvements in locomotive design. A. Gore. Mach 28:305 D '21
Locomotives for the Chemins de fer du Midi. diags Engineering 114:360-2, pl 27 S 22 '22
Marking another milestone in locomotive design; Rock Island mountain type locomotives. J. T. Anthony. il Ry R 69:789-91 D 10 '21
Michigan Central Mikado has many special features. il diags Ry Age 73:411-15 S 2 '22; Same, with diags. Ry Mech Eng 96:497-501 S '22
Mikado locomotives for the Lehigh Valley. il diags Ry Mech Eng 97:739-42 N '23
Modern tendencies in locomotive design. J. Partington. Ry Age 72:909-10 Ap 15 '22; Same. Ry R 70:533-4 Ap 15 '22; Same. Ry Mech Eng 96:251-2 My '22; Discussion. Ry Age 72:910 Ap 15 '22; Ry Mech Eng 96:252 My '22
Most powerful Mikados on the Lackawanna railroad. il (supp) diags Ry R 72:279-86 F 17 '23
Mountain type locomotive for high capacity. il diags Ry Mech Eng 96:380-5 Jl '22
New booster suspension and locomotive trailing truck. il diags Ry R 72:205-9 F 3 '23
Operating capacity increased with modern motive power; new locomotives of Missouri and Northern Pacific roads. il diags Ry R 69:817-24 D 17 '21
Operation of automatic locomotive cut-off control. il diags Ry R 72:677-90 Ap 21 '23
Outside dry pipe and locomotive throttle design. il diags Ry R 72:294-5 F 17 '23
Passenger locomotive design breaks record for size in 1922. il (supp) diags Ry R 72:25-33 Ja 6 '23
Passing of the cross-compound. il diags Ry R 70:264-5 F 25 '22
Pennsylvania ten-wheel passenger locomotive. il diags Ry Age 75:859-60 N 10 '23
Possibilities for improvement in locomotive design. A. H. Fetters. Ry R 73:7-8 Jl 7 '23
Recent and future locomotive design in New South Wales. E. E. Lucy. Engineer 134: 681 D 29 '22
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See also Locomotives—Boosters; Locomotives—Runs

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Locomotives—*Continued*

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See also Electric locomotives—Testing

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Jig for pouring bronze hub liners on engine truck wheels. J. H. Hahn. il diags Ry Mech Eng 96:409 Jl '22

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See also Tires, Locomotive

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See Factories—Accounting

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Alabama second-class examination, Birmingham, July 23-28, 1922. Coal Age 21:495 Mr 23 '22
Analyzing the foremen. J. Thompson. Coal Age 22:365 S 7 '22
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Anthracite foremen's examination, districts 3-7 incl., 1923. Coal Age 24:328, 366 Ag 30-S 6 '23
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Mine foremen's examination, Lexington, Ky., 1922. Coal Age 23:305, 342 F 15-22 '23
Mine foremen's qualifications required in different coal-producing states. Coal Age 21:847-8 My 18 '22
Securing capable mine officials greatest factor in safety. T: Allen. Coal Age 23:824-5 My 17 '23
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West Virginia mine foremen's and firebosses' examination, Charleston, 1922. Coal Age 23: 227 F 1 '23

See also Mine management

Mine gases
Automatic gas sampler for mine explosions. il Pop Mech 37:530 Ap '22
Chemical engineer's part in the rescue work at the Argonaut mine disaster. L. H. Duschak. il Chem & Met Eng 28:349-50 F 21 '23
Effect of rise and fall of barometer on the escape of gas in mines. Coal Age 21:928-9 Je 1 '22
Explosibility of gaseous mixtures. M. Suter. Coal Age 22:364-5 S 7 '22
Hot high-nitrogen gas in a metal mine. Sci Am 126:45 Ja '22; Same cond. Min & Sci P 123:788 D 3 '21
Making a test for gas in a room. diag Coal Age 23:531-2 Mr 29 '23
Percentage of gas estimated from volume generated per ton of coal mined. Coal Age 22:60-1 Jl 13 '22

See also Blackdamp; Carbon monoxide; Firedamp; Mine ventilation

Mine gases as fuel
Estimating calorific value of mine feeder gas. Coal Age 22:328-9 Ag 31 '22

Mine haulage
Belting to revolutionize mining methods. Coal Age 23:593-4 Ap 12 '23
Cambria steel co. drops coal down well, loads it at bottom and hauls it to ovens. G: A. Richardson. il diags plans Coal Age 22: 313-17 Ag 31 '22
Chain grip for rope haulage. diag Eng & Min J 114:636 O 7 '22
Continuous car supply in rooms. F. C. Cornet. diag Coal Age 22:720 N 2 '22
Dispatching of mine cars at the rolling mill mine. G: A. Richardson. il Coal Age 23: 333-4 F 22 '23
Electric bell trapper for partings. C. Rowe. diag Coal Age 22:1030-1 D 28 '22
Enlisting the turntable in mechanical coal loading. E. N. Zern. diags Coal Age 22:283-5 Ag 24 '22
Estimating equipment for engine-plane haulage. Coal Age 22:499-500 S 28 '22
Estimating number of cars needed to operate mine. Coal Age 22:173 Ag 3 '22
Examples of successful gravity planes. plan Coal Age 22:592 O 12 '22
Gathering without animals, locomotives or conveyors. F. C. Cornet. diags Coal Age 23: 631-3 Ap 19 '23
Handling ore in mines of Butte district; abstract. H. R. Tunnell. Min & Met 182: 45-6 F '22
Haulage arrangements in pitching seams. C: M. Schloss. Coal Age 21:926 Je 1 '22
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Mule haulage in metal mines. W. F. Boericke. Eng & Min J 112:853-5 N 26 '21
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Reporting delays lowers production costs. G: Edwards. Coal Age 22:790 N 16 '22
Rope haulage in slopes of variable grades. Coal Age 20:768-9 N 10 '21
Safer and more economical methods in mine haulage. A. F. Brosky. il diags Coal Age 23:209-12 F 1 '23
Self-acting gravity plane. diag Coal Age 22: 211-12 Ag 10 '22
Speed in locomotive haulage in mines. Coal Age 21:494, 884-5 Mr 23, My 25 '22
Study of coal mine haulage in Illinois, including cost tables. H. H. Stoek, J. R. Fleming and A. J. Hoskin. il diags maps Ill U Eng Exp Sta Bul 132:1-134 '22: Abstract. Engineering 115:49 Ja 12 '23
Value of the aerial ropeway in mining. Ind Management (Lond) 8:387-8 D 28 '22
Wire rope is tough, but faulty installation and careless operation quickly destroy it. J. F. Howe. il Coal Age 22:825-8 N 23 '22
Wiring a mine for locomotive haulage. C: M. Schloss. diag Coal Age 20:926-7 D 8 '21

See also Locomotives, Mine; Mine cars; Mine hoisting; Mine tipples; Mine tracks; Motor trucks in mining; Snow motor

Cost
When should battery locomotives replace mules and when be preferred to trolley equipment? C: E. Stuart. diags map Coal Age 21:277-82 F 16 '22

Safety devices
Pinch bar with changeable grip cannot slip and fall and will block wheel. il Coal Age 23:183 Ja 25 '23
Safe methods for electric mine haulage that insure protection to motorman and equipment. J. F. MacWilliams. il Coal Age 24: 619-22 O 25 '23

Mine hoisting
A.I.M.E. discusses safety and life of hoisting ropes. Coal Age 21:408-11 Mr 9 '22
Auxiliary shaft both hoists and lowers coal at two-seam Navajo no. 5 mine in New Mexico. H. B. Cooley. flow sheet il diags plan Coal Age 24:237-45 Ag 16 '23
Calculation of horsepower required for unbalanced uncounterweighted hoist in shallow shaft. F. L. Stone. il Coal Age 22:577-80 O 12 '22
Calculation of power required for a counterweighted hoist and one in balance, shallow shaft. F. L. Stone. il Coal Age 22:625-8 O 19 '22

Mine hoisting—*Continued*
Chain-and-bucket elevator device. A. W. Allen. diags plan Eng & Min J 114:553 S 23 '22; Discussion. F. W. Collins. 115:1096-7 Je 23 '23
Counterbalancing a small hoist at the Hibernia mine. F. E. Wormser. il diags plan Eng & Min J 114:725-7 O 21 '22
Coverdale mine to hoist 4,000 tons per day is fitted with two-car self-dumping cages. A. F. Brosky. il diags plan Coal Age 22: 865-71 N 30 '22
Cutting hoisting costs at a shaft with five levels. D. C. Ashmead. il plans Coal Age 22:1027-30 D 28 '22
Hoist and compressor on common bedplate driven by internal-combustion engine. il Coal Age 20:765 N 10 '21
Hoist for men and supplies at Arizona copper mine. R. E. Donovan. Eng & Min J 113:56 Ja 14 '22
Increasing rope capacity of hoist. H. H. Hunner. il Eng & Min J 113:333 F 25 '22
Large winding drum. il diags Engineer 135: 662, 670 Je 22 '23
Load on knuckle sheave, hoisting on incline. Coal Age 20:928 D 8 '21
Made over 2,100 hoists in eight hours. C: F. Sherman. plan Coal Age 23:566-7 Ap 5 '23
Scraper hoist operated on compressed air. il Coal Age 24:628 O 25 '23
Scraping and loading in mines with small compressed-air hoists. W. Royce. il diags plans Eng & Min J 112:925-31 D 10 '21
Seneca's novel man cage. H: M. Payne. Eng & Min J 113:1056 Je 17 '22
Shaft arrangements for hoisting. Eng & Min J 113:729 Ap 29 '22
Speed of moving men in mine shafts. M. W. von Bernewitz. Eng & Min J 116:15-16 Jl 7 '23
Study of stresses and design of head sheaves for coal-mine shafts. J. S. Watts. diags Coal Age 22:127-30 Jl 27 '22
Surface arrangements for hoisting. Eng & Min J 113:824 My 13 '22
Two independent shafts, which serve two distinct but connected mines, dump coal over one tipple. il Coal Age 20:884-5 D 1 '21
Types of cages and skips. Eng & Min J 113: 682 Ap 22 '22
Use of taper ropes for hoisting. Eng & Min J 112:936 D 10 '21
What equipment should be provided for hoisting men and ventilating mine when electric power fails. G. Bright. il Coal Age 24:433-5 S 20 '23
Would so slant cage hoods as to prevent coal or water from falling on cagers. R. W. Lightburn. Coal Age 21:780-1 My 11 '22

See also Dumping appliances; Hoisting machinery; Mine cars; Mine crossheads; Mine haulage

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Cage-operated stop makes caging safe and efficient. D. C. Ashmead. il Coal Age 21: 12-13 Ja 5 '22
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Safety gates at Cresson slowly opened by rack and pinion electrically operated. il diags Coal Age 21:777 My 11 '22
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This room hoist is totally inclosed to forestall accident. il Coal Age 21:617 Ap 13 '22

Mine hoisting, Electric
Coal hoist will have capacity of 2000 T. per hr. Power Pl Eng 27:853 Ag 15 '23
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Electrified copper mine. J. B. Johnson and C. L. Gerhardt. il diags plan Elec W 82: 905-9 N 3 '23
Enclosed room hoist is safe, sturdy, easily portable and convenient. il Coal Age 23: 821-3 My 17 '23
Hoists that accelerate, slow themselves down or work unattended and substations needing no attendant. C. E. H. von Sothen. il Coal Age 22:537-40 O 5 '22
Induction motor operated mine hoist with dynamic braking. R. W. McNeill. il diags Elec J 20:97-100 Mr '23
Iron and steel electric engineers discuss applications of mine hoists. Coal Age 23: 932 Je 7 '23
Large electric winders in a South Wales colliery. il Electrician 89:129 Ag 4 '22; Same. Elec R (Lond) 90:760-1 Je 2 '22
Largest electrical winding plant. diags Engineer 135:126-7 F 2 '23
Liquid controller reduces peak loads by providing for uniform acceleration of large mine hoist. D. J. Baker. il diag Coal Age 21:487-90 Mr 23 '22
Mine-hoist control equipment for large installations. H. W. Chadbourne. il diag Coal Age 24:659-61 N 1 '23
Problems when selecting type of motor drive for large mine hoisting plants. G. Bright. il diags Coal Age 23:933-6 Je 7 '23
Scheme for meeting peak hoisting loads. J. L. Knight. Coal Age 20:764 N 10 '21
Selecting equipment for vertical shaft hoisting. M. A. Maxwell. il Coal Age 24:581-5 O 18 '23
Speed-reducing gear lowers headroom needed for loading-boom hoist. il Coal Age 22:362 S 7 '22

Mine inspectors

Examination

Alabama first-class examination, Birmingham, July 25-28, 1921. Coal Age 20:769, 809, 849 N 10-24 '21
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Mine inspectors' institute of America
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Mine interconnection
Interconnection of contiguous mines. G: J. Young. Eng & Min J 116:547-8 S 29 '23

Mine layout
Laying out mine for coal-loading shovel operations. W: Whaley. diags plans Coal Age 22:87-8 Jl 20 '22
Making the mine layout match the surface equipment. D. D. Wilcox. plans Coal Age 22:53-6 Jl 13 '22
Plan for shaft mine giving large capacity and saving in stoppings, overcasts, doors and air costs. O. J. Pleschner. Coal Age 22:83-4 Jl 20 '22

Mine lighting
Effect of lighting conditions on output in coal mines. Illum Engr 16:25-6 Ja '23
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Lighting of mines in relation to miners' nystagmus; first report of the miners' nystagmus committee. Illum Engr 15:97-100 Mr '22
Safe method of lighting coal mines. W. M. Thornton. Elec R (Lond) 93:552-3 O 12 '23

Mine management
Factors in mine management that lead to loss and waste. P. Yeatman. Min & Met 183:25-32 Mr '22
Geological department of Phelps Dodge corporation at Tyrone, N.M. D. Eyoub. map Eng & Min J 113:1047-8 Je 17 '22
Getting around the labor shortage. G: L. Walker. Eng & Min J 116:230 Ag 11 '23

Mine management—*Continued*
How mechanical and electrical engineers can increase their usefulness in the operation of mines. W. C. Shunk. Coal Age 22:447-9 S 21 '22
Industrial relations at Tennessee copper company. J. N. Houser. Min & Met 192:19-20 D '22
Mine labor. H. J. C. MacDonald. Eng & Min J 114:236-8 Ag 5 '22
Operations at the Buck Passer mine. Eng & Min J 115:981-3; 116:356-7, 729-30 Je 2, S 1, O 27 '23
Personal touch in management. G: Edwards. Coal Age 23:303-4 F 15 '23
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See also Coal mines and mining—Management; Mine accounting; Mine firebosses; Mine foremen; Mine signals; Miners

Mine managers
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Mine managers' examination, Springfield, Ill., Mar. 19, 1923. Coal Age 23:865, 905, 943 My 24-Je 7 '23

Mine maps
Advantage of using isometric mine map bearing selected operating data. T: F. Kennedy. diags maps Coal Age 20:758-60 N 10 '21
Designation of polymetallic ore deposits with flag-marks. A. K. Boldirev. diags Eng & Min J 115:408-9 Mr 3 '23
Geological department of Phelps Dodge corporation at Tyrone, N.M. D. Eyoub. map Eng & Min J 113:1047-8 Je 17 '22

See also Mine surveying

Mine officials

See also Mine firebosses; Mine foremen; Mine management; Mine managers

Certification

Certificate and safety. L. Blenkensopp. Coal Age 22:326-7 Ag 31 '22
Certificate vs. experience. R. W. Lightburn; W. H. Luxton. Coal Age 21:291-2 F 16 '22
Certification in England. W: Dickinson. Coal Age 22:19 Jl 6 '22
Certification upheld. J. Thompson. Coal Age 20:726 N 3 '21
Certified men in demand. I. C. Parfitt. Coal Age 20:767 N 10 '21
Certify the mine superintendent. Coal Age 20: 180, 684-5, 1016-17; 21:212; 22:18-19 Ag 4, O 27, D 22 '21, F 2, Jl 6 '22
Value of certification law appreciated. Coal Age 20:807-8; 21:211 N 17 '21, F 2 '22
Why worry over change in certificate law. Coal Age 21:658-9 Ap 20 '22

Mine power. See Mining engineering—Power

Mine pumping
Damming water in the Star crosscut. Eng & Min J 113:871 My 20 '22
Direct-current motors for pump driving. il Coal Age 21:452 Mr 16 '22
Economical mine pumping. P. K. Lucke. diag plan Eng & Min J 116:184 Ag 4 '23
Effect of exhausting or blowing on pumping. Coal Age 21:1052-3 Je 22 '22
How the Law shaft is protected against high water. D. C. Ashmead. il diag Coal Age 23:850-2 My 24 '23
Installing pipe lines in shaft at Rosiclare mine. E. C. Reeder. diags Eng & Min J 115:1116-17 Je 23 '23
Large sump and night pumping lower peak load when electric power displaces steam at Isabella. A. F. Brosky. il diags Coal Age 23:627-30 Ap 19 '23
One hundred tons of water per ton mined. Coal Age 21:874 My 25 '22
Pumping the Big Muddy river out of a mine to save machinery and 300,000 tons of coal. C. L. Moorman. il chart diag map Coal Age 22:907-10 D 7 '22
Revolutionizing mine pumping with automatically primed, started and controlled centrifugal pumps. E. Gealy. il diags Coal Age 24:392-6 S 13 '23
Les travaux de dénoyage des houillères du Nord et du Pas-de-Calais. il Génie Civil 83:202-4 S 1 '23
Uses of compressed air in mining. W. R. Wade. diag Eng & Min J 113:172-3 Ja 28 '22

Mine pumps
Belt-driven mine pump suited to low coal. il Coal Age 21:1087 Je 29 '22
Centrifugal vs. reciprocating pumps. Eng & Min J 113:62-3, 171 Ja 14-28 '22
Deepwell pumps adapted to mine drainage; submergence a favorable condition. diags Coal Age 23:1010 Je 21 '23
How to make stubborn pumps pick up water. J: Walls, sr. Coal Age 22:918 D 7 '22
Mine pumps. G: A. Drysdale. Eng & Min J 114:308 Ag 12 '22
Revolutionizing mine pumping with automatically primed, started and controlled centrifugal pumps. E. Gealy. il diags Coal Age 24:392-6 S 13 '23
Suggestions as to the construction and location of mine gathering pumps. Coal Age 24:658 N 1 '23
Triplex mine pumps. il Eng & Min J 115:476 Mr 10 '23
What to watch in running a high-lift centrifugal mine pump. Coal Age 23:48-9 Ja 11 '23

Protection

Submersible pumproom will not flood till water rises one hundred and twenty feet above pumps. D. C. Ashmead. il plan Coal Age 23:257-8 F 8 '23

Mine railroads

See Locomotives, Mine; Mine ties; Mine tracks

Mine records
Progress and lost-material records aid in map making and inventory keeping. Coal Age 21:530-1 Mr 30 '22

Mine refuse. See Culm

Mine reports
Analytical method of summarizing mining reports. F: C. Fearing. Eng & Min J 116: 713-18 O 27 '23; Discussion. L. C. Stuckey. 116:1036 D 15 '23
Describing a small mine. L. W. Wickes. Eng & Min J 116:368 S 1 '23
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Chemical engineer's part in the rescue work at the Argonaut mine disaster. L. H. Duschak. il Chem & Met Eng 28:349-50 F 21 '23
Cooperative mine station and its safety work. C. L. Colburn. il Nat Safety N 7:33-4 Je '23
Liquid air boiling away at partially regulated speed used to supply mine rescuers and rescued. H: Briggs. il diags Coal Age 21:609-12 Ap 13 '22
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Rescue work at Argonaut mine fire of 1922. B. O. Pickard. diags Min & Met 191:27-34 N '22
Signalling by wireless telegraphy to entombed miners. Engineer 134:551 N 24 '22
6th annual first-aid and mine-rescue meet at Salt Lake City. Coal Age 24:367-8, 443-4 S 6, 20 '23

See also Mining engineering—Safety measures

Mine roofs
Abnormal roof conditions require special study. diags Coal Age 24:253-4 Ag 16 '23
Mortar ejected from cement gun protects roof from injurious effects of mine atmosphere. il diag Coal Age 23:807-11 My 17 '23

Mine roofs—*Continued*
Supporting roof over roadway to avoid accidents. G: Bowker. diags Coal Age 24:363 S 6 '23
Unsafe roof conditions often develop suddenly. Coal Age 22:288-9 Ag 24 '22

Mine sampling. See Ore sampling

Mine sanitation
Underground hygiene and sanitation. R. R. Sayers. Eng & Contr 58:274-6 S 20 '22

Mine shaft houses
Method and cost of building reinforced concrete shaft houses. J. E. Hayden and L. Eaton. il diags plans Eng & Contr 58:297-9 S 27 '22

Mine shafts
Big new shaft will have steel-concrete lining. Eng & Min J 116:473 S 15 '23
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Cost of concreting mining shafts. E. E. Campbell. Eng & Contr 56:466 N 16 '21
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Inspiration consolidated's Porphyry shaft. A. C. Stoddard. il diags plans Eng & Min J 115:265-71 F 10 '23
Lining a shaft in sixty-foot sections, starting from near top downward, greatly reduces cost. A. F. Brosky. il diags plan Coal Age 21:563-6 Ap 6 '22
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Steel timbers and grouted lagging of steel and brick make durable and dry shaft bottom at Revloc, Pa. R. B. Woodworth. il diags plan Coal Age 20:1041-3 D 29 '21
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World's largest salt shaft nearing completion. il Pop Mech 36:823 D '21

See also Mine crossheads; Mine hoisting; Mine timbering; Mine ventilation; Shaft sinking

Mine shops
At Library the Pittsburgh coal co. conducts a central machine shop for repair and storage of equipment. A. F. Brosky. il Coal Age 21:317-20 F 23 '22
Machine shop, bathhouse, houses and other accessory buildings at the new Gallup American mine. H. B. Cooley. il diags plans Coal Age 24:427-32 S 20 '23
Maintenance and repair methods in the shops of the Consolidation coal co. at Jenkins, Ky. A. F. Brosky. il diag Coal Age 23:513-18 Mr 29 '23
Mine blacksmith's tools and how he uses them. G. A. Radebaugh. il diag Coal Age 22:707-11 N 2 '22

Mine signals
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Block signals control trips at Indianola; flickering lamp shows when fan runs. A. F. Brosky. il Coal Age 20:963-4 D 15 '21
Collapsible danger signal for firebosses acts as warning and a fence. R. W. Lightburn. diag Coal Age 21:14-15 Ja 5 '22
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Shaft signaling system at Ironton mine, Bessemer, Mich. W. H. Carrick. il diag Eng & Min J 115:852 My 12 '23
Underground signaling with radio. diags Elec W 82:490 S 8 '23
Utilizes lighting circuits for signaling. diags Coal Age 23:485-6 Mr 22 '23

Mine stables
Structural details of underground stable. A. F. Brosky. il Coal Age 23:489 Mr 22 '23

Mine subsidences
Coal mine subsidence damages concrete girder bridge. G. F. Burch. il diags Eng N 90:1046-7 Je 14 '23
Ground movement and subsidence. G: S. Rice. Min & Met 186:34 Je '22

Mine superintendents. See Mine management; Mine officials

Mine surveying
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See also Geophone; Surveying instruments

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See also Coal—Taxation

Mine telephones
Eliminating the noises from mine-telephone circuits. Coal Age 23:974 Je 14 '23
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Mine ties

Steel mine tie with tee clamps fitting into lugs holds rails to gage. diag Coal Age 21: 13 Ja 5 '22

Use of steel mine track ties in heavy motor haulage. Coal Age 24:405-6, 671 S 13, N 1 '23

Mine timber, Recovery of

Recovering mine timber at Cananea. diags Eng & Min J 114:376 Ag 26 '22

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Mine timbering

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Motor bus lines—Cost of operation—*Continued*
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Urban bus operation and cost. A. C. Blinn. Aera 11:805-10 F '23; Same. Bus Transportation 2:99-101 F '23; Abstract. Elec Ry J 61:165-6 Ja 27 '23

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See also Motor bus lines—Finance

Employees

How employees are selected and trained in Watertown, N. Y. il map Bus Transportation 2:421-5 S '23
London dispute of general interest. Bus Transportation 1:68 Ja '22
Merit system promotes efficiency among bus operators. Bus Transportation 1:291 My '22

Fare collection

Closed system of intercity fare collection. il Bus Transportation 2:117-18 Mr '23
Fare collection practice in northern New Jersey. Bus Transportation 1:426 Ag '22
Simple yet effective fare collection. il Bus Transportation 2:331 Jl '23
Some fare collection experiments in Cincinnati. il Bus Transportation 2:415-16 S '23

Fares

Charts aid in the analysis of fare schedules in Los Angeles. il Bus Transportation 1: 236-7 Ap '22
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Zone fare system used successfully on line serving Rochester's Fifth avenue. il Bus Transportation 2:115-17 Mr '23

Finance

Brattleboro operation profitable. Bus Transportation 2:550 N '23
Buses handle 70 per cent of local traffic in Long Beach. Bus Transportation 1:413-15 Ag '22
Comment on California returns. Bus Transportation 2:55 Ja '23
Comparative statement of operations of Chicago motor bus company for 1922, 1921, 1920 and 1919. Bus Transportation 2:160 Mr '23
Details of equipment and cost of operation of double-deck buses in Chicago. il diags plan Bus Transportation 1:31-6 Ja '22
Details of London omnibus expense. Bus Transportation 2:453-4 S '23
Detroit bus company expanding. Bus Transportation 2:550 N '23
Leeds (England) tramways analyzes its accounts. Bus Transportation 1:409 Jl '22
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See also Motor bus lines—Cost of operation; Motor bus lines—Costs; Motor bus lines—Fares

Franchises

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Garages

Comparison of ramp and elevator type garages. H. F. Blanchard. il diags Bus Transportation 1:331-5 Je '22
Fifty-bus garage for the United electric railways. diags plans Bus Transportation 2:179-81 Ap '23
Garage layout is all important. il plan Bus Transportation 1:89-92 F '22
Garage of Berlin company. il plans Bus Transportation 1:110 F '22
How 200 buses are put under one roof. M. C. Schwab. il diags plans Bus Transportation 2:507-11 N '23
Planning maintenance facilities. il plan Bus Transportation 2:375-9 Ag '23

Laws and regulations

Akron ordinance discourages part time operators. Bus Transportation 2:57 Ja '23
Bus in northern Dixie. maps Bus Transportation 1:93-102 F '22
California's experience in bus regulation. D. C. Smith. Bus Transportation 1:419-21 Ag '22
City control builds up bus transportation; Paterson, N.J., enforces standards for construction and operation. Bus Transportation 1:225-7 Ap '22
Decision by New York commission granting bus line right to operate extends cold comfort to railroads. Bus Transportation 1:609 N '22
491 applications in California during year; important decisions. Bus Transportation 2: 49 Ja '23
How the motor bus serves Pennsylvania. il maps Bus Transportation 1:228-35 Ap '22
Model regulatory law, proposed at A.E.R.A. meeting. Bus Transportation 1:543-7 O '22
More states regulate bus. Bus Transportation 2:309-10 Je '23
Motor bus as a factor in highway transport. J: N. Mackall. il Bus Transportation 1:26-7 Ja '22
Motor bus laws abstracted. Bus Transportation 1:485-6 S '22
Obligation of the state to protect the business of the established utility says New Jersey Supreme court. Aera 12:180-1 S '23
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Ohio enforcement progressing slowly. Bus Transportation 2:551 N '23
Remedies for unauthorized competition. Bus Transportation 1:551-2 O '22
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State of Oregon in its first year of regulating motor stage operation. map Bus Transportation 2:31-3 Ja '23
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Trend of bus regulation. E. V. Kuykendall. Bus Transportation 2:28-9 Ja '23
Uniform classification for class A automotive transportation companies. 38p California Railroad commission. Sacramento '21
What motor bus regulation has accomplished in Utah. W. Stoutnour. il map Bus Transportation 2:333-7 Jl '23
Wildcat operation gone for good in Providence, R. I. il Bus Transportation 1:573-5 N '22

Management

A.E.R.A. committee report on bus operation. Aera 12:320-31 O '23; Abstracts. Elec Ry J 62:638-41 O 13 '23; Bus Transportation 2: 523-5 N '23; Eng & Contr (Ry) 60:1090-3 N 21 '23; Soc Auto Eng J 13:375-7 N '23

Motor bus lines—Management—*Continued*
Bus operation. H. W. Alden. Soc Auto Eng J 13:377-9 N '23; Same cond. Bus Transportation 2:525-6 N '23
Courtesy, safety and service mean good bus operation on the Delaware rapid transit. il maps Bus Transportation 1:365-7 Jl '22
Fundamentals in the operation of motor bus lines. G. A. Green. 7p Nat. automobile chamber of commerce, New York
Getting bus patronage in the smaller cities. B. G. Roller. il Bus Transportation 2:1-4 Ja '23
Good maintenance and complete records keep buses on the road. W. E. Martin. il Bus Transportation 1:463-6 S '22
How employees are selected and trained in Watertown, N. Y. il map Bus Transportation 2:421-5 S '23
How it's done on Fifth avenue. il map Bus Transportation 1:153-61 Mr '22
Keeping out of traffic builds business. Bus Transportation 2:223-4 My '23
Maintenance methods in nation's capital. il Bus Transportation 2:183-5 Ap '23
Many operating changes are being made in Chicago bus service. Bus Transportation 2: 125-7 Mr '23
Motor bus handles all urban traffic in Middletown, Ohio. il map Bus Transportation 2: 215-17 My '23
Operations of an omnibus company. F. Pick. Bus Transportation 1:271-4 My '22
Providing bus service for commuters and shoppers in Chicago. il diag Bus Transportation 1:106-9 F '22
Review of how the buses are handling passengers during the New Jersey transportation controversy. il Bus Transportation 2:411-14 S '23
Suburban route built up by giving frequent and regular service. il Bus Transportation 1:523-6 O '22
Wilkes-Barre has a popular motor bus line. il map plan Bus Transportation 1:317-22 Je '22

Records

Day card that forms the basis of an accounting system. Bus Transportation 2:417 S '23

Safety devices and measures

Real attention to the safety of the public by a wholesale user of city streets. il Safety Eng 44:7-8 Jl '22

Shops

Industrial organisation in public services. Ind Management (Lond) 8:349-52 D 14 '22
London's motor-bus repair plant. il Pop Mech 40:87-9 Jl '23
Les nouveaux ateliers de révision et de réparation des autobus de Londres, à Chiswick. P. Calfas. il diags plan Génie Civil 80:245-9 Mr 18 '22
Omnibus overhauling depot. il diags Engineer 133:121-4, 130, 137 F 3 '22
Overhauling shops of the London general omnibus company. il plan Bus Transportation 1:79-84 F '22
Planning maintenance facilities. il plan Bus Transportation 2:375-9, 472-4 Ag, O '23
Repair works of the London General omnibus company. il Engineering 113:140, 145-7 F 3 '22
Repairing London's omnibuses. I. W: Chubb. il diags Am Mach 58:761-3, 797-800, 857-9 My 24-31, Je 14 '23
Shop operations for double-deckers. il Bus Transportation 2:61-3 F '23
See also Motor buses—Repair

Snow removal

In the snow country bus lines keep their routes open in winter. il diag Bus Transportation 2:363-8 Ag '23
Modern practice in city snow fighting; how the Fifth avenue coach company cleans its routes. il map Bus Transportation 2:369-71 Ag '23

Stations

Bus operators combine to provide union stage depot. il map Bus Transportation 1: 45-9 Ja '22
Los Angeles union stage depot used by 350 cars daily. il Bus Transportation 1:275-6 My '22

Street railroad auxiliaries

A.E.R.A. committee report on bus operation. Aera 12:320-31 O '23; Abstracts. Elec Ry J 62:638-41 O 13 '23; Bus Transportation 2:523-5 N '23; Eng & Contr (Ry) 60:1090-3 N 21 '23; Soc Auto Eng J 13:375-7 N '23
A.E.R.A. committee report on trackless transportation. Elec Ry J 62:619-20 O 13 '23
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Bus data from Providence. Bus Transportation 2:173-4 Ap '23
Bus links railway lines. map Bus Transportation 1:322 Je '22
Bus operation by electric railways nearly doubles in year. Bus Transportation 2:482-5 O '23
Bus operation well started in Louisville. il plan Bus Transportation 2:463-5 O '23
California interurbans and the bus. D. W. Pontius. Elec Ry J 60:556-7 O 7 '22; Same cond. Bus Transportation 1:547-8 O '22
Co-ordinated operation of street cars and buses urged. G: H. Davis. Elec Ry J 61: 1035-6 Je 23 '23
Co-ordinated tram and motor bus service in Boston. E: Dana. diags Elec Ry J 62:559-60 O 6 '23
Coordination of the motorbus and the street railway. C. D. Emmons. Soc Auto Eng J 12:433-6+ My '23; Same. Aera 11:1237-44 My '23; Same abr. Eng & Contr (Ry) 59:1105-9 My 16 '23; Discussion. Soc Auto Eng J 12: 495-6 My '23
Co-ordination of trolley and bus in California. D. W. Pontius. Elec Ry J 62:597-9 O 13 '23; Excerpts. Bus Transportation 2:588-9 D '23
Declining patronage leads to bus operation in New London, Conn. il Bus Transportation 2:461-2 O '23
Fifteen electric railways enter bus field. Bus Transportation 2:545-7 N '23
How motor buses are utilized by the electric railways. Bus Transportation 1:481-4 S '22
Individual and company applications of the motor bus. W. Jackson. Bus Transportation 2:121-3 Mr '23
Many railroads perfecting bus plans. Bus Transportation 2:353-4 Jl '23
Milwaukee railway expands its bus system. Bus Transportation 2:153 Mr '23
Milwaukee railway operates both city and intercity bus service. il maps Bus Transportation 2:479-81 O '23
Montreal's bus line. il Bus Transportation 1: 170-1 Mr '22
More railways using buses. Aera 12:315-17 O '23
Motor bus and the electric railway. J. W. Welsh. Eng & Contr (Ry) 60:592-4 S 19 '23
Motor bus, trolley bus and electric railway. W. B. Potter. Eng & Contr (Equip R) 60: 937-9 O 31 '23
Motorize short-haul trolley. Elec Ry J 61: 301 F 17 '23
North Shore operation. H: Cordell. Bus Transportation 2:444-7 S '23
Pacific electric finds a place for the bus. il map Bus Transportation 2:229-32 My '23
Putting the motor bus and trolley together to build service. H. W. Grant. il map Bus Transportation 1:1-3 Ja '22
Railway increases bus fleet. Bus Transportation 1:614 N '22
Railway lines in Los Angeles will install bus service—to fight McAdoo project. Elec Ry J 61:307 F 17 '23
Rapid advance in stage design in Washington; the Pacific Northwest traction co. operates two stages. il Bus Transportation 1:527-9 O '22

Motor bus lines—Street railroad auxiliaries —*Continued*
Reviews of report of committee on bus operation. H. W. Alden. Elec Ry J 62:602-3 O 13 '23
Rubber urge in transportation; abstracts. Z. W. Carter. Elec Ry J 60:51-2 Jl 8 '22; Automotive Ind 47:80-1 Jl 13 '22; Bus Transportation 1:445-6 Ag '22
Schuylkill county bus feeder service operates buses with drive on the front and rear wheels. il plan Bus Transportation 2:27-8 Ja '23
Service established in Akron by railway. il map Bus Transportation 1:252-3 Ap '22
Some common interests of highway and rail transportation. Z. W. Carter. Munic Eng 63:sup20-7 Jl '22; Excerpts. Eng & Contr 58:68-70 Jl 19 '22
State commission sanctions use of bus by Eastern Massachusetts railway. Bus Transportation 2:209 Ap '23
Street railways need assistance of automotive engineers. Automotive Ind 48:654-5 Mr 22 '23
Toronto railway puts on buses. il Elec Ry J 58:867-8 N 12 '21
Trolley buses and flexible vehicles for street railway service. W: P. Kennedy. il diags Soc Auto Eng J 13:179-95 S '23; Same cond. Bus Transportation 2:253-4 My '23; Discussion. Soc Auto Eng J 12:401-2; 13:322-32 Ap, O '23; Bus Transportation 2:254 My '23
True coordination is to come. L. S. Storrs. Aera 12:600-4 N '23; Same abr. Eng & Contr (Ry) 60:1301-3 D 19 '23; Excerpts. Elec Ry J 62:589-90 O 13 '23
Urban bus operation and cost. A. C. Blinn. Aera 11:805-10 F '23; Same. Bus Transportation 2:99-101 F '23
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Use of the interurban bus. G. T. Seely. Elec Ry J 61:169-70 Ja 27 '23

Taxation

California taxes bus. Bus Transportation 2: 358 Jl '23
Taxation of automobile lines. W. V. Hill. Aera 10:1076-9 Jl '22; Abstract. Bus Transportation 1:448-9 Ag '22; Discussion. 1:552-3, 599, 649-51; 2:35 O '22-Ja '23

Terminals

Bus terminals and baggage kinks. il Bus Transportation 2:418-19 S '23
Intercity bus lines need local terminal stations. L. J. Carmalt. plans Bus Transportation 2:275-7 Je '23
Merchants' association enlarges bus terminal at Poughkeepsie, N.Y. il Bus Transportation 1:594-5 N '22
Minneapolis lines open terminal. map Bus Transportation 1:353 Je '22

See also Motor bus lines—Stations

Tickets

Duplex ticket that aids bus operation. Bus Transportation 2:326 Jl '23

Traffic

Up-to-date passenger traffic checking methods in New Jersey produce good office records. Bus Transportation 1:531-3 O '22

Argentina

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Connecticut

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Courtesy, safety and service mean good bus operation on the Delaware rapid transit. il maps Bus Transportation 1:365-7 Jl '22

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Operating results from buses in Edinburgh. Bus Transportation 1:515-16 S '22

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Improved schedules greatly increase traffic in Elizabeth. L. F. Conlon. il Bus Transportation 2:327-8 Jl '23

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Motor bus lines—*Continued*

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Far East using bus service. W. I. Irvine. Bus Transportation 2:147 Mr '23
Motor buses are changing social life in Far East. Automotive Ind 49:430-1 Ag 30 '23

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Buses thrive in Florida. il maps Bus Transportation 2:64-71 F '23

Great Britain

Bus in Britain; a general lookaround. il map Bus Transportation 1:28-30 Ja '22
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Illinois

Motor bus industry in Illinois. Aera 11:795-9 F '23
Perspective of bus operation in Illinois. maps Bus Transportation 1:470-6 S '22

Indiana

Bus operation in the Hoosier state. il map Bus Transportation 2:281-4 Je '23

Kentucky

Kentucky owners organize. map Bus Transportation 1:139 F '22

La Porte, Indiana

Building a bus business; Jahn's bus line, La Porte, Indiana. il map Bus Transportation 1:467-9 S '22

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Long Beach, California

Buses handle 70 per cent of local traffic in California city of 70,000. il map Bus Transportation 1:413-15 Ag '22

Los Angeles, California

100 buses for Los Angeles. Bus Transportation 2:302 Je '23
Titanic struggle being waged for Los Angeles franchise. Bus Transportation 2:153-4 Mr '23

Maryland

Network on Maryland shore. il Bus Transportation 1:563-4 O '22

Michigan

Ambitious Michigan project. Bus Transportation 1:663 D '22
Wolverine bus lines concentrated in lower half of state. maps Bus Transportation 1:641-7 D '22

Minnesota

Bus operation growing in Minnesota. il map Bus Transportation 2:186-9 Ap '23
Buses de luxe to the surgical mecca: Twin Cities to Rochester, Minn. il Sci Am 127:341 N '22
How one company averages 53,500 miles per bus annually; Twin City motor bus company. il Bus Transportation 1:263-7 My '22
Southern Minnesota uses buses. map Bus Transportation 1:254-5 Ap '22
Winter operation in the frozen North. il Bus Transportation 2:372-4 Ag '23

Muskegon, Michigan

Beidler line scores. il Bus Transportation 1:405 Jl '22

New England

Bus operation in the playground of the East. il map Bus Transportation 1:534-40 O '22

New Jersey

Buses handle New Jersey traffic for fifty days. il Bus Transportation 2:475-8 O '23
In New Jersey the motor bus is used very largely for handling short-haul urban traffic. L. F. Conlon, H. C. Eddy and F. J. Daly. maps Bus Transportation 1:427-34 Ag '22
New Jersey transportation tangle grows more acute. Bus Transportation 2:513-14 N '23
Review of how the buses are handling passengers during the New Jersey transportation controversy. il Bus Transportation 2: 411-14 S '23

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Declining patronage leads to bus operation in New London, Conn. il Bus Transportation 2:461-2 O '23

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See also Fifth avenue coach company

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Bus line combines service de luxe with scenic attractions. il Bus Transportation 1: 38-9 Ja '22
Omnibuses authorized to compete with railroads in New York. Ry Age 73:818-19 O 28 '22
Turnpikes turn to bus routes in Empire state. maps Bus Transportation 1:383-9 Jl '22

Newburgh, New York

Newburgh metamorphosed. il map Bus Transportation 1:614, 617 N '22

Ohio

Birdseye view of Ohio buses. maps Bus Transportation 1:173-81 Mr '22
Ohio commission issues bus regulations under Freeman-Collister act. Bus Transportation 2:431-2 S '23; Elec Ry J 62:159 Jl 28 '23
Ohio commission issues figures on transportation by buses. Bus Transportation 2:357 Jl '23
Ohio enforcement progressing slowly. Bus Transportation 2:551 N '23
Traction companies in Springfield, Newark and Zanesville give bus parking space and advertising and urge travel. Bus Transportation 1:615 N '22

Omaha, Nebraska

Bus operators combine to provide union stage depot. il map Bus Transportation 1:45-9 Ja '22

Oregon

State of Oregon in its first year of regulating motor stage operation. map Bus Transportation 2:31-3 Ja '23

Pacific coast

Pacific coast has interurban scenic bus service. il map Bus Transportation 1:44 Ja '22

Paris

Société des transports en commun de la région Parisienne. il plan Engineering 113: 740-5 Je 16 '22

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Propose municipal system in Pasadena. Bus Transportation 1:612 N '22

Motor bus lines—*Continued*

Pennsylvania

Getting bus patronage in the smaller cities. B. G. Roller. il Bus Transportation 2:1-4 Ja '23

How the motor bus serves Pennsylvania. il maps Bus Transportation 1:228-35 Ap '22

Suburban route built up by giving frequent and regular service. il Bus Transportation 1:523-6 O '22

Peru

Motor buses increase in Peru. Automotive Ind 47:478 S 7 '22

Portland, Oregon

Two hundred stages daily from this terminal. il Bus Transportation 1:530 O '22

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Buses major transportation medium in Porto Rico. Automotive Ind 46:525 Mr 2 '22

Richmond, Virginia

Richmond corporation granted franchise. diag Bus Transportation 2:53 Ja '23

Saginaw, Michigan

Great Saginaw failure. L. St Clair. Aera 12:141-6 S '23

Two projects in Saginaw. il Bus Transportation 1:508 S '22

St Louis, Missouri

Municipal buses swing round the circle in Forest Park, St Louis. il map Bus Transportation 1:425-6 Ag '22

St Louis line popular. il Bus Transportation 2:352-3 Jl '23

Service started in St Louis. Bus Transportation 2:303 Je '23

United railways considers two routes. Bus Transportation 1:562, 564 O '22

Schenectady, New York

Buses meet strike emergency. Bus Transportation 2:305-6 Je '23

Seattle, Washington

Motor bus operations of the Seattle municipal railway system. il Bus Transportation 1:585 N '22

South Africa

Motor bus has invaded South Africa. M. Edward. il Bus Transportation 1:638-40 D '22

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Old Hickory's state has bus operation all the year round. il map Bus Transportation 2:233-6 My '23

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Motor bus experience in Tulsa. B. Hilburn. Bus Transportation 2:200-1 Ap '23

United States

Green fields for bus transportation. map Bus Transportation 2:321-2 Jl '23

Utah

What motor bus regulation has accomplished in Utah. W. Stoutnour. il map Bus Transportation 2:333-7 Jl '23

Washington (state)

Rapid advance in stage design in Washington; the Pacific Northwest traction co. operates two stages. il Bus Transportation 1:527-9 O '22

Washington stage development sets high record. maps Bus Transportation 1:579-85 N '22

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Bus is popular in the Capital city. il plan Bus Transportation 1:17-22 Ja '22

Commission blocks bus expansion in Washington. Bus Transportation 1:666 D '22; Elec Ry J 60:895 D 2 '22

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Bright future for bus business in West Virginia. Bus Transportation 2:434-5 S '23

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New line covers coal fields. Bus Transportation 1:451-2 Ag '22

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How one bus company found its field; Eastern Wisconsin transportation co., Fond du Lac. Bus Transportation 1:586 N '22

Milwaukee railway operates both city and intercity bus service. il maps Bus Transportation 2:479-81 O '23

Not a trip lost in two years on Appleton-Menasha-Neenah bus line. il Bus Transportation 1:422-4 Ag '22

Panorama of the Badger state buses. maps Bus Transportation 1:285-90 My '22

Yellowstone National park

650,000 bus-miles operated in short park season. il map Bus Transportation 1:575-6 N '22

Youngstown, Ohio

Two bus lines aid local transportation. il map Bus Transportation 2:128-30 Mr '23

Motor bus lines, Municipal

Motor bus operations of the Seattle municipal railway system. il Bus Transportation 1:585 N '22

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Municipal buses swing round the circle in Forest Park, St Louis. il map Bus Transportation 1:425-6 Ag '22

Propose municipal system in Pasadena. Bus Transportation 1:612 N '22

Shop operations for double-deckers; New York city Concourse line. il Bus Transportation 2:61-3 F '23

Motor bus lines, Suburban

Bus line follows real estate development in Albany, N.Y. il diag map Bus Transportation 1:221-4 Ap '22

Bus line furnishes railroad feeder service. il diag Bus Transportation 1:112-13 F '22

De luxe service given by interurban coach line. il diag plan Bus Transportation 2:175-8 Ap '23

Missouri intercity lines maintain quality service. il Bus Transportation 2:465-6 O '23

New bus company for Chicago suburbs. il map Bus Transportation 2:323-5 Jl '23

Use of the interurban bus between Youngstown and Warren. G. T. Seely. Bus Transportation 2:96-7 F '23

Motor bus lines, Tourist

Maintaining dependable service on heavy grades and rough roads; Yosemite transportation system. il Bus Transportation 2:316-19 Jl '23

Trip from Cleveland to Gettysburg, Pa., New York, Atlantic City, N.J., Washington, D.C., Pittsburgh, Pa., and back. il Bus Transportation 1:450 Ag '22

See also Automobile touring companies; Motor bus lines—Yellowstone National park

Motor bus tires. See Tires, Motor bus

Motor buses

Aluminum cuts weight of 25-passenger bus. Bus Transportation 1:603 N '22

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Are the trolleys the only practical system of transportation? G. W. Pearson. Elec Ry J 58:866-7 N 12 '21

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British develop large single-deckers. il plan Bus Transportation 2:426 S '23

Bus in Britain; a general lookaround. il map Bus Transportation 1:28-30 Ja '22

Cadillac chassis becomes twenty-passenger stage. il Bus Transportation 2:433 S '23

Clerestory roof used in new bus. il Bus Transportation 2:470-1 O '23

Motor buses—*Continued*
De-luxe motor bus built like chair car. il Pop Mech 40:420 S '23
Details of equipment and cost of operation of double-deck buses in Chicago. il diags plan Bus Transportation 1:31-6 Ja '22
Detroit's low-floor double-deck prepayment bus has several novel features. il plan Bus Transportation 1:479-80 S '22
Development of London general omnibus motor vehicles. G. J. Shave. Bus Transportation 2:399-400 Ag '23
Double-deck buses. J. F. Collins. Bus Transportation 2:44-5 Ja '23
Eight-wheel bus. C. W. Geiger. il Sci Am 127:101 Ag '22
English char-a-bancs and motor buses. Automotive Ind 45:1281 D 29 '21
Fiat one-man bus has sixteen seats. il Bus Transportation 2:420 S '23
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Hotel bus service height of comfort and luxury. il Pop Mech 36:837 D '21
Hotel operates bus service for its guests. il Bus Transportation 1:111-12 F '22
Kissel producing 18-passenger coach. il Automotive Ind 47:413-14 Ag 31 '22
Large-capacity motor bus has detachable body. il Pop Mech 38:391 S '22
Low-frame bus with double service door. il Bus Transportation 1:654, 655 D '22
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New bus weighs 157 lb. per seat. il plans Bus Transportation 1:269-70 My '22
New city coach has 26-in. floor level. il Bus Transportation 1:346 Je '22
New coaches for Youngstown & suburban railway have individual wicker chairs. il Bus Transportation 2:319-20 Jl '23
New London bus differs materially from previous models. M. W. Bourdon. il diag Automotive Ind 48:1319-21 Je 21 '23
New model designed solely for bus service. Sci Am 126:273 Ap '22
New Sedan-type bus for 17 passengers. il Bus Transportation 1:498 S '22
New sixty-nine-passenger double-decker installed in Chicago. il diag Bus Transportation 2:427-30 S '23
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Service established in Akron by railway. il map Bus Transportation 1:252-3 Ap '22
Some fundamental characteristics of present-day buses. R. E. Plimpton. il diags plan Soc Auto Eng J 11:163-71 Ag '22; Same cond. Bus Transportation 1:375-8 Jl '22; Excerpt. Automotive Ind 46:1377-9 Je 22 '22; Discussion. Soc Auto Eng J 11:171-2 Ag '22
Some recent developments in the motor bus field. il Automotive Ind 46:907-9 Ap 27 '22
Standard brings out another model. Bus Transportation 1:655 D '22
Ten-passenger bus of touring-car type; the Standard. il Bus Transportation 1:555 O '22
What constitutes a perfect motor bus. G. A. Green. diag India Rubber W 66:805 S '22
See also Advertising mediums—Motor buses; Brakes, Motor bus; Electric buses; Jitney buses; Motor bus lines; Railroads—Motor vehicle auxiliaries; Trackless trolley; *also* Fifth avenue coach company, New York

Axles
Axle designed especially for bus applications. H. Chase. diags Automotive Ind 46:549-50 Mr 9 '22
Britton comes out with bus rear axles. diags Bus Transportation 1:242-3 Ap '22
Bus axle for either gasoline or electric drive. diags Bus Transportation 1:189 Mr '22
Continental model 600 motorbus front axle. diags Automotive Ind 49:469 S 6 '23
Double-reduction axle for twenty-passenger bus. il Bus Transportation 1:600 N '22
Huck double reduction truck axle employs planetary gears. diags Automotive Ind 48: 1076-7 My 17 '23; Bus Transportation 2:292-3 Je '23
Internal-gear axle for heavy-duty buses. il Bus Transportation 1:297+ My '22
New rear axle designed for motor buses. diags Automotive Ind 47:507-8 S 14 '22; Bus Transportation 1:498-500 S '22

Ball bearing suspension
See Motor buses—Suspension systems

Bodies
Body details of English sixty-three seater. il plan Bus Transportation 1:436-7 Ag '22
Building omnibus bodies. il (supp) diags Engineer 136:102-3 Jl 27 '23
Bus bodies took big forward strides in 1922. il plans Bus Transportation 2:15-21 Ja '23
Bus body light in weight. il Bus Transportation 1:395-6 Jl '22
Central aisle features new de luxe body. il Bus Transportation 2:343 Jl '23
Standard body for Reo chassis. plan Bus Transportation 1:655 D '22
Windows disappear in this all-steel body. il Bus Transportation 1:652 D '22

Chassis
Chassis designed for double- or single-deck service. il diags Bus Transportation 2: 390-2 Ag '23
Federal experiments with chassis designed for bus service. il Automotive Ind 48:512-13 Mr 1 '23
Goodwin-Guilder chassis designed especially for bus service. il Automotive Ind 47:1224 D 21 '22
New chassis has almost uniform weight distribution. il Bus Transportation 1:442-3 Ag '22
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Principles of motorbus design and operation. G. A. Green. il diags Soc Auto Eng J 11: 13-26 Jl '22; Same cond. Automotive Ind 46:1364-71 Je 22 '22; Same cond. Bus Transportation 1:369-78 Jl '22; Discussion. Soc Auto Eng J 11:188-92 Ag '22
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London buses have special cleaning facilities. il Bus Transportation 1:421 Ag '22
Shower bath speeds up job of washing motor bus. il Pop Mech 38:430 S '22

Cost of operation
Private school charges $125 a year for bus service. il Bus Transportation 1:368 Jl '22
See also Motor bus lines—Cost of operation

Motor buses—*Continued*

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Buses need better brakes and universal joints, street railway executive thinks. E. B. Atchley. Automotive Ind 49:281 Ag 9 '23

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White chassis designed especially for bus service. J. E: Schipper. il diags Automotive Ind 46:655-6 Mr 23 '22

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Doors

Opening devices for bus doors. diag Bus Transportation 1:440 Ag '22

Electric equipment

Electrical equipment for bus service. T. L. Lee and G. R. Fessenden. il diag Bus Transportation 2:273-4 Je '23

Electrical equipment for motor buses placed on market. il Automotive Ind 48:553 Mr 8 '23

Exhibitions

Buses at the Boston auto show. il Bus Transportation 2:172-3 Ap '23

Commercial motor exhibition; trend of design in heavy vehicles. il diags Automobile Eng 11:362-8 N '21

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Heating system includes tuning-up valve. Bus Transportation 1:602-3 N '22

Register type of bus heater. il diag Bus Transportation 2:294 Je '23

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Generators for bus lighting. il Bus Transportation 1:601 N '22

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Lubrication

Lubricating the bus mechanism. il diag Bus Transportation 1:435-6 Ag '22

Manufacture

A bus a day turned out by operator. il diags plan Bus Transportation 2:515-18 N '23

Bus building by bus operators. il Bus Transportation 2:269-71 Je '23

Makes large aluminum cowl. D. Partridge. il Foundry 50:820-2 O 15 '22

Repair

English tramways company builds and operates buses. il diag map Bus Transportation 1:493-5 S '22

How one company averages 53,500 miles per bus annually; Twin City motor bus company. il Bus Transportation 1:263-7 My '22

London's motor-bus repair plant. il Pop Mech 40:87-9 Jl '23

Maintaining dependable service on heavy grades and rough roads; Yosemite transportation system. il Bus Transportation 2: 316-19 Jl '23

Maintaining stages on a large western system. il map Bus Transportation 2:167-71 Ap '23

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Wicker chairs in this de luxe bus, the Fageol. il Bus Transportation 1:602 N '22

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Condensed specifications of motor vehicles for bus service. See monthly numbers of Bus transportation

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Auxiliary springs take up shocks. il diag Bus Transportation 2:536 N '23

Eliminating spring shackles. diags Sci Am 128:121 F '23

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Bus and standardization. C. F. Clarkson. Bus Transportation 2:218 My '23

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British use pneumatic bus body suspension. diags Automotive Ind 49:633 S 27 '23

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Transmission

Drive unit for six-wheel chassis. il diag Bus Transportation 2:291 Je '23

Flat springs and Hotchkiss drive favored in bus design. A. F. Masury. diags Automotive Ind 49:163-5 Jl 26 '23

Wheels

Dual wheel has single air valve. diag Bus Transportation 2:140 Mr '23

Easy riding on heavy motor vehicles; tire and felloe construction. il diag Bus Transportation 1:277-80 My '22

Eight wheels improve riding qualities. il Bus Transportation 1:121-3 F '22

Six-wheel stage is developed in California. il diag Bus Transportation 2:265-7 Je '23

Steel wheels solve problems in use of dual tires. il diags Bus Transportation 1:172 Mr '22

Motor buses, Steam

Q. E. D. steam motor bus uses Winslow boiler. il Automotive Ind 49:121 Jl 19 '23

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Comparative deflection tests favor the motor stage. Bus Transportation 2:9 Ja '23; Same. Eng N 90:263 F 8 '23

Motor buses and roads—*Continued*
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Another advance in gasoline rail car construction. il plans Ry R 70:389-92 Mr 18 '22
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Motor cars (railroad)—*Continued*
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New lightweight railway motor car. il Ry Age 72:920 Ap 15 '22

Specifications

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Design and operation of the unit railway steam car. il diags plan Ry R 71:433-7 S 30 '22; Ry Age 73:711-13 O 14 '22; Mech Eng 44:841 D '22
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Experience gained as a result of road tests of railcars. D. A. Hampson. il diags Automotive Ind 46:754-6 Ap 6 '22

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Automotrice à essence et à deux essieux pour chemins de fer d'intérêt local. G. Tartary. il Génie Civil 80:115 F 4 '22; Abstract (French gasoline rail car). Elec Ry J 59: 513 Mr 25 '22
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Rail motor buses replace interurban cars. il Elec Ry J 60:43 Jl 8 '22
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Motor cultivators. See Cultivators, Motor

Motor cycle engines
All-aluminum cycle engine light and powerful. il Pop Mech 39:720 My '23
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Oil-cooling the motorcycle engine. il Sci Am 128:385 Je '23

Fuel

Crude-oil motor without a carburetor. il Sci Am 129:342 N '23

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Development of the single-cylinder solo motor cycle. H. D. Teage. il diags Automobile Eng 11:382-6 N '21
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Motor fuel. See Automobile engines—Fuel; Gas and oil engines—Fuel; Motor truck engines—Fuel

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Motor omnibuses. See Motor buses

Motor ships
Big Canadian Diesel engined tug. il Marine R 53:255 Jl '23
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Big U.S. built motorship, the Californian. il plans Marine R 52:229-31 Je '22
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Save weight and space in motorship. il diags Marine R 53:365-8 O '23
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See also Ore handling

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Ore estimates. See Mine valuation

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Ore washing
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Oregon

See Coal mines and mining—Oregon; Hydroelectric plants—Oregon; Mercury mines and mining—Oregon; Mines and mineral resources—Oregon; Motor bus lines—Oregon; Railroads—Oregon

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See Metals—Prices

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Orientation, Molecular. See Molecular orientation

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See also Pipe lines

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Railroad machinery. See Railroads—Track making machinery

Railroad management. See Railroads—Management

Railroad motor cars. See Motor cars (railroad)

Railroad rates. See Railroads—Rates

Railroad regulation. See Railroads and state

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Railroad shops. See Electric railroads—Shops; Locomotive shops; Railroads—Shops

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Railroad supplies. See Railroads—Equipment and supplies

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Appreciation of the supply industry by leading railway officials. Ry R 70:sup21-6 Je 10; sup21-3 Je 17; sup21 Je 24 '22
Big supply trade building planned for Chicago. Ry R 72:867, 968-9 My 19, Je 9 '23
Buying of railroads at low ebb in 1921. Iron Age 109:83-4 Ja 5 '22
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See also Railroad ties

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Resurvey of the Southern railway after improvement. G: W. White. Eng N 87:764-5 N 10 '21
Tractor used on swampy railroad location. il Eng N 90:459 Mr 8 '23; Discussion. 90:720, 1058 Ap 19, Je 14 '23

See also Railroad engineering; Railroads—Curves and turnouts

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Railroad ticket protective bureau still fighting scalpers. Ry Age 71:994 N 19 '21

Railroad tie plates
McVicker tie plates. il Ry R 70:61-2 Ja 14 '22
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Smith tie puller. il Ry R 72:160-1 Ja 20 '23

Railroad ties
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Crisis in wood preserving. E. B. Fulks. Ry R 72:270 F 10 '23
Danish railroads benefit from tie preservation. Ry Age 73:215-16 Jl 29 '22; Excerpt. Eng & Contr (Ry) 58:7-8 O 18 '22
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More about cross ties. G: G. Yeomans. Ry Age 74:412 F 17 '23
Necessity for a larger tie. Ry Age 74:746-7 Mr 17 '23
New idea in the merchandising of ties. il Ry Age 74:477-9 F 24 '23
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New tie treating plant of the Oregon Short Line. il Ry R 72:656-8 Ap 14 '23
Norfolk & Western goes to treated cross ties. il plan Ry Age 71:1141-4 D 10 '21

Railroad ties—*Continued*
Pre-adzing and boring of ties. Eng & Contr (Ry) 59:420 F 21 '23
Preservative treatment of ties and timber. charts Ry R 71:854-60 D 16 '22; Same cond. Eng & Contr (Ry) 59:141-7 Ja 17 '23
Proper handling of ties. F. S. Pooles. Eng & Contr 57:76 Ja 18 '22
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Report of A. R. E. A. committee on ties. Ry R 72:503-5 Mr 17 '23; Excerpt. Eng N 90:542 Mr 22 '23; Excerpts. Ry Age 74:667-70 Mr 15 '23
Report on the non-spacing of joint ties. Ry Age 73:997 N 25 '22; Ry R 71:741-2 N 25 '22
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Should cost of treating ties be charged to maintenance or capital account? E. Stimson. il Ry R 70:188-9 F 11 '22; Same cond. Ry Age 72:416 F 18 '22; Same. Eng & Contr 57:255 Mr 15 '22; Discussion. Ry R 70:189-90, 486-8 F 11, Ap 8 '22; Ry Age 72:1003-4 Ap 29 '22; Eng & Contr 57:584 Je 21 '22; Eng N 88:921-2; 89:161 Je 1, Jl 27 '22
Statistics show increase in timber preservation. Ry Age 73:391 Ag 26 '22
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Tie and timber preservation. J. H. Waterman. Elec Ry J 59:524-5 Mr 25 '22
Tie and timber treating plant of the Boston Elevated Ry. H. M. Steward. il plan Eng & Contr (Ry) 58:104-6 N 15 '22
Tie production greatly curtailed. Ry Age 72: 322 F 4 '22
Tie renewals. J. E. Jacobs. Eng & Contr (Ry) 59:1363-4 Je 20 '23
Tie storage yard of the M.K. & T. Ry. il Ry R 72:233-4 F 3 '23
Tie treating practices of the A. T. & S. F. Ry. S. D. Cooper. map Ry R 73:415-18 S 22 '23; Same, without map. Eng & Contr (Ry) 60:818-21 O 17 '23; Abstract. Ry Age 75:533-4 S 22 '23
Timber treating plant at Louisville, Ky. operates different processes. il diags plans Eng N 90:782-5 My 3 '23
Track building with steel ties. C. L. Hedges. Elec Ry J 62:376 S 8 '23
Traverse métallique sans trou, de la Société d'Ougrée-Marihaye. diags Génie Civil 81:400 O 28 '22
Treated tie records on the C. B. & Q. R. R. Ry R 71:272-4 Ag 26 '22
Treating plant solves New Haven's tie problem. il diag plan Ry Age 73:1179-83 D 23 '22
Treating ties with creosote in two minutes. il Ry Age 74:911-13 Ap 7 '23
Tropical hardwood tie question. C. D. Mell. Ry Age 72:744 Mr 18 '22
Two aspects of the tie-treatment question. H. H. George. Elec Ry J 59:460-2 Mr 18 '22
Use of treated cross ties by American railways. Eng & Contr (Ry) 58:25 O 18 '22
Utilizing old bridge ties in street crossings. Eng & Contr (Ry) 59:1408 Je 20 '23
Value of gum wood as tie material; abstracts. J. R. Keig. Ry Age 74:332 F 3 '23; Eng N 90:444 Mr 8 '23
Way committee report on substitute ties. Elec Ry J 60:536, 709, 778-9 O 7, 28, N 11 '22
What is a tie? Ry Age 74:366 F 10 '23
Wood preservers discuss economics of ties at 18th annual convention. il Ry Age 72: 269-72 Ja 28 '22; Ry R 70:119-21 Ja 28 '22

See also Railroads—Construction; Railroads—Track

Cost

Diagram for calculating annual cost of cross ties. E. R. Cary. Eng & Contr 57:245-6 Mr 15 '22
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Wages for hewing ties. Eng & Contr 57:77 Ja 18 '22

Inspection

Is a central tie inspection bureau feasible? Ry Age 74:1404-5 Je 16 '23
Lax grading now characterizes tie inspection. il Ry Age 75:61-4 Jl 14 '23
There should be an A.R.A. tie inspection bureau. G: G. Yeomans. Ry R 73:107-8 Jl 21 '23

Specifications

Procurement of railway ties under federal control. G. G. Yeomans. Ry R 70:20-2, 55-7 Ja 7-14 '22

Testing

Means of determining the average life of ties. V. K. Hendricks. charts Ry Age 72: 779-83 Mr 25 '22

Railroad ties, Concrete
Concrete block ties of the Stent design on railways in India. il diag Eng N 91:511 S 27 '23
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Testing

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Railroad tracks. See Mine tracks; Railroads—Track; Street railroads—Track

Railroad yards. See Railroads—Yards

Railroads
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Le congrès international des chemins de fer (Rome 18-28 avril 1922). Génie Civil 80:571-7 Je 24 '22
Deficiency in construction during the past eight years. H. P. Gillette and J. C. Black. Eng & Contr 57:261-3 Mr 22 '22
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Transportation—the master key to progress. E: J. Kearney. Ry Age 75:683-6 O 13 '23; Same cond. Am Mach 59:595-8 O 18 '23; Abstract. Ry Mech Eng 97:745-6 N '23
Untold millions being spent by railways to meet nation's needs. il Pop Mech 40:691-3 N '23

See also Air brakes; Bridges, Railroad; Cableways; Carriers; Cars; Electric railroads; Elevated railroads; Express service; Freight car service; Freight cars; Freight tunnels; Grade crossings; Locomotive shops; Locomotive terminals; Locomotives; Mine tracks; Motor cars (railroad); Mountain railroads; Radio telephone on railroads; Rail bonds; Rail fastenings; Rail joints; Railroad engineering; Railroad research; Railroad ties; Rails; Railway mail service; Rapid transit; Roundhouses; Street railroads; Subways; Terminals; Train des-

Railroads—*Continued*
patching; Train ferries; Train resistance; Transportation; Trestles; Tunnels and tunneling; *also* names of railroads, e.g. Baghdad railway; Pan American railroad (proposed); Pennsylvania railroad; *also* National association of railway and utilities commissioners

Accidents

Accidents to platelayers. Engineer 133:46 Ja 13 '22
Best accident record in history. Ry Age 72: 903-4 Ap 15 '22
Black Diamond express derailed by an automobile. il Ry Age 72:1176 My 20 '22
Careful crossing campaign and other safety measures. il Ry R 71:391-2 S 16 '22
Causes of train accidents in 1921. Eng & Contr (Ry) 59:1366 Je 20 '23
Celilo collision. il Ry Age 72:1031-2 Ap 29 '22
Changing problem of railway accidents. Ry Age 73:637 O 7 '22
Disastrous collision on Philadelphia & Reading. il Ry Age 71:1163-4 D 10 '21
Disastrous derailment at Winslow Junction, N.J. il plan Ry Age 73:77-8 Jl 8 '22
Five types of crossing protection fail to prevent accident. il Ry R 71:601-2 O 28 '22
Flood causes disastrous wreck on the Burlington. il Ry Age 75:634 O 6 '23
Government report on Sulphur Springs collision. il Ry Age 73:938 N 18 '22
Has the careful crossing campaign reduced accidents at grade crossings? views of a typical group of railroad men. Ry R 71:451-4 S 30 '22
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Locomotive thrown up side of hill by collision. il Pop Mech 37:172 F '22
Michigan Central express wrecked by removal of track spikes. il diag Ry Age 73:392 Ag 26 '22
Missouri Pacific accident at Sulphur Springs, Mo. il plan Ry Age 73:287-8, 318 Ag 12-19 '22
Preventable railway accidents. Engineering 112:891-2 D 30 '21
Railway accidents and track work. Eng N 90:702 Ap 19 '23
Railway accidents in Great Britain. Engineer 132:574-5; 134:73, 520; 136:44, 145 N 25 '21, Jl 21, N 17 '22, Jl 13, Ag 10 '23; Engineering 114:529-30; 116:183 O 27 '22, Ag 10 '23
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Report on collision at Alexis, Ohio. Ry Age 74:1052 Ap 28 '23
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Report on collision at Fowler, Colorado. Ry Age 75:624 O 6 '23
Report on collision near Leeds, Mo. il Ry Age 73:328 Ag 19 '22
Report on collision near Plains, Kan. Ry Age 72:1332 Je 10 '22
Report on Gould (Ohio) collision. Ry Age 71: 1052 N 26 '21
Report on the Manhattan collision. W. P. Borland. plan Ry R 69:902-4 D 31 '21
Report on the Philadelphia & Reading collision. il Ry R 70:10-15 Ja 7 '22; Ry Age 72:173-4 Ja 14 '22
Report on three accidents on the Union Pacific railroad. Ry R 72:308-9 F 17 '23; Ry Age 74:384 F 10 '23
Six collisions. Ry Age 73:454-5 S 9 '22
Steam railway accidents in 1921. Ry Age 72:825 Ap 1 '22
Vandals commit series of outrages. il diags Ry R 71:265-6 Ag 26 '22
When headlight meets headlight. Ry Age 73: 703-4, 784 O 14, 28 '22

See also Explosives—Transportation; Grade crossing accidents; Grade crossings; Locomotives—Failures; Railroads—Safety devices and measures; Railroads—Signals; Street railroads—Accidents

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Should cost of treating ties be charged to maintenance or capital account? E. Stimson. il Ry R 70:188-9 F 11 '22; Same cond. Ry Age 72:416 F 18 '22; Same. Eng & Contr 57:255 Mr 15 '22; Discussion. Ry R 70:189-90 F 11 '22; Eng N 88:921-2; 89:161 Je 1, Jl 27 '22

Railroads—Accounting—*Continued*
Simplified system of car accounting saves large expense. J. W. Fox. Ry R 70:251-7 F 25 '22
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See also Locomotive shops—Accounting; Railroads—Auditors; Railroads—Finance; Railroads—Valuation

Advertising

Advance guard of Christmas advertising. Ptr Ink 121:141 O 19 '22
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For the railroads—a sales manager. E: Hungerford. Ptr Ink 119:74-6+ Ap 6 '22
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See also Electric railroads—Advertising; Railroads—Public relations; Street railroads—Advertising

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Air brakes

See Air brakes

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Plea for recognition of the traveling auditor. Ry Age 72:239-41 Ja 21 '22

Automatic operation

See Electric railroads—Automatic operation

Automatic stop

Angus system of automatic train control. il Ry R 69:863-4 D 24 '21
Automatic hand on the throttle. S. G. Roberts. il Sci Am 127:174-5 S '22
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Australia

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Railroads—Electrification—*Continued*

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See Railroads—Electrification—Great Britain

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Railroads—Electrification—*Continued*

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Railroads—Employees—*Continued*
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Problems that confront the railroads. C. H. Markham. Ry R 72:155-8 Ja 20 '23; Same cond. Ry Age 74:285-6 Ja 27 '23
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See also Electric railroads—Employees; Locomotive engineers; Railroad engineers; Railroad labor board; Railroad shopmen's strike; Railroads—Auditors; Railroads—Car departments; Railroads—Chief clerks; Railroads—Clerks; Railroads—Contract work; Railroads—Management; Railroads—Officials; Railroads—Roadmasters; Rail-

Railroads—Employees—*Continued*
roads—Schools; Railroads—Station agents; Railroads—Wages; Railroads—Yardmasters; Train despatchers; *also* Brotherhood of maintenance of way employees and railway shop laborers; Young men's Christian association—Railroad department

National agreements and Labor board rules

Dispatchers given new national agreement. Ry Age 72:483-4 F 25 '22; Ry R 70:275-6 F 25 '22
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Labor board issues new rules for signalmen. Ry Age 72:438-40 F 18 '22; Ry R 70:238-41 F 18 '22
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Training

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See Railroads—Wages

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See Express service

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Fires and fire protection

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See also Railway fire protection association

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Railroads—Freight—*Continued*
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Freight cars

See Freight cars

Fuel

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See also Railroads, Narrow gage

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See Railroads and state—United States

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History

See also Southern Pacific railroad

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Inspection

See also Car inspection; Locomotives—Inspection

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See Railroads—Tickets

Law

See Railroad law

Lighting

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See also Car lighting; Railroads—Yards—Lighting

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Railroads—*Continued*

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See also Railroad surveying; Railroads—Construction; Railroads—Curves and turnouts

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See Railroads—Track making machinery

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See also Cars—Repair; Freight cars—Repair; Locomotive shops; Locomotives—Repair; Railroad ties; Railroads—Contract work; Railroads—Equipment and supplies; Railroads—Management; Railroads—Roadmasters; Railroads—Shops; Railroads—Track; Rails

Maintenance of way

See Railroads—Track

Management

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Senator Couzens' charges of incompetency. Ry Age 74:983-4 Ap 21 '23
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Some of Mr. Ford's ideas may be sound. Ry Age 71:1298 D 31 '21
Some points in refined discipline. H. W. Forman. Ry Age 75:31-2 Jl 7 '23
Suggestions for greater efficiency and economy. F. Snow. Ry Age 73:702-3 O 14 '22; Discussion. 73:831-2 N 4 '22
Superintendent's responsibility beyond the right-of-way. J. R. Koontz. Ry Age 74: 1529-30 Je 23 '23
Supervision—a vital problem of management J. L. Wilkes. Ry R 71:235-8 Ag 19 '22
Transportation act, amendment vs. further trial; reviewing the railroads' recent record of operating efficiency. J. Kruttschnitt. Ry Age 75:861-6 N 10 '23
Transportation ratio must be reduced. S. Ennes. Ry Age 75:197-9 Ag 4 '23
Victorian railways consolidate departments. chart Ry Age 73:1245-6 D 30 '22
W. G. McAdoo defends his administration. Ry Age 72:327-30, 371-4, 392-3 F 4-11 '22
Western Maryland 1921 net in sharp contrast. il Ry Age 71:1309-11 D 31 '21
What economies in railroad operation can you suggest; views of a typical group of railroad men. Ry R 72:152-4 Ja 20 '23

See also Car inspection; Freight car service; Freight handling; Railroads—Claims; Railroads—Employees; Railroads—Equipment and supplies; Railroads—Finance; Railroads—Maintenance and repair; Railroads—Office management; Railroads—Officials; Railroads—Public relations; Railroads—Purchasing; Railroads—Rates; Railroads—Roadmasters; Railroads—Safety devices and measures; Railroads—Ticket offices; Railroads—Train load; Train despatching; *also* Detroit, Toledo & Ironton railroad

Mileage

Construction activities improve during 1922. il Ry Age 74:116-18 Ja 6 '23
Decline of railroad mileage. Ry Age 74:845-8 Mr 31 '23
Not much activity in new construction in 1921. M. Moore. Ry Age 72:149-51 Ja 7 '22
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Railroads—*Continued*

Motor vehicle auxiliaries

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Motor vehicle competition

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Office management

Systematize work of clerical forces. V: Cahalin. Ry Age 75:7 Jl 7 '23; Discussion. W: Balfour. 75:282 Ag 18 '23

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See also Railroads—Roadmasters

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Are the salaries of railroad men equitable as compared with their duties and responsibilities; views of a typical group of railroad men. Ry R 71:565-6 O 21 '22

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Inadequate salaries of railway chief engineers. Eng & Contr (Ry) 59:1352-3 Je 20 '23

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Organization

See Railroads—Management

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See also American association of passenger traffic officers

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On educating farmers about railroad matters. C. A. Richards. Ry Age 74:551-2 Mr 10 '23

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Why operate efficiently and neglect public sentiment? Ry Age 74:793-5 Mr 24 '23

See also Railroads and state

Purchasing

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See also Railroad supplies industry; Rails

Purchasing agents

Official list of railway purchasing agents of the United States and Canada. Ry R 70: 924 Je 17 '22

Rails

See Rails

Railroads—*Continued*

Rates

Agitation for reduced rates termed menace to reviving prosperity. Ry Age 73:1233-4 D 30 '22

Agricultural conference asks rate reduction. Ry Age 72:317-18 F 4 '22

Amendment to Transportation act opposed. Ry Age 71:1266-7 D 24 '21

Arguments before I. C. C. in general rate case. Ry Age 72:573-8 Mr 11 '22

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Attacks on railway valuation cannot result in reduced rates. F. W. Sargent. Ry R 73: 143-4 Jl 28 '23

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Carriers accept proposed rate reductions. Ry R 70:800-1 Je 3 '22

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Railroads—Rates—*Continued*

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Railroads—Rates—*Continued*
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See also Railroads—Fares; Railway mail service

Records

See Railroads—Forms, blanks, etc.

Repair shops

See Railroads—Shops

Roadmasters

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See also Cars; Cars—Statistics; Container cars; Dining cars; Freight cars; Locomotives; Motor cars (railroad); Refrigerator cars; Sleeping cars; Tank cars

Roundhouses

See Roundhouses

Safety devices and measures

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Electric drives in railroad shops. B. S. Pero. il Mach 28:477-81 F '22
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Grinding machine in the railroad shop. F. A. Stanley. il Am Mach 56:64-6 Ja 12 '22
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See also Electric railroads—Stores systems; Railroads—Equipment and supplies; Railroads—Purchasing; Railroads—Stationery; Railroads—Supply trains

Strikes

See Railroad shopmen's strike, 1922; Strikes

Supplies

See Railroads—Equipment and supplies; Railroads—Stores systems

Supply trains

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Custody and delivery of railway materials. il Ry R 71:847-50 D 16 '22
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Surveying

See Railroad surveying

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Life of switches and crossings. Eng & Contr 58:197 Ag 30 '22
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Turnout slips and crossings, Chicago union station. diags Ry R 72:765-7 My 5 '23
Welding frogs and crossings with manganese steel. H. R. Pennington. il diag Ry R 70: 153-6 F 4 '22; Same. Eng & Contr 57:152-4 F 15 '22; Discussion. Ry R 70:156-7 F 4 '22

See also Railroads—Crossings

Switching

Boston switching rates — studies in cost of service. J: C. Owers. map Ry Age 73:337-9 Ag 19 '22
Co-operative switching of joint tracks succeeds at Seattle. Ry Age 72:1184 My 20 '22
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Long distance operation of railway facing points. il diag Engineer 134:227 S 1 '22
Motionless train vs. remote controlled switches. Ry Age 74:851, 1088 Mr 31, My 5 '23
Remote operation of switches on the New Haven. il diags map Ry Age 73:251-2 Ag 5 '22
Savings made by remote operation of switches. Ry Age 75:806 N 3 '23

Taxation

Contrasts in railway taxation. Ry R 70:612-13 Ap 29 '22
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Regulations regarding tax cancellations and refunds. Ry Age 71:1196 D 17 '21

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Better preparation of students for railway work with special reference to the telegraph and telephone department. I. C. Forshee. Am Inst E E J 41:413-14 Je '22

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Telephone in trunk line railroad service. S. Rhoads. il Ry Age 72:525-6 Mr 4 '22

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Another plan for a terminal at Chicago. il diag Ry Age 74:1065-7 Ap 28 '23

Another study of Chicago railway terminals. il plans Ry R 72:192-6 Ja 27 '23

Chicago gets a new passenger terminal plan. il plans Ry Age 74:263-7 Ja 27 '23; Ry R 72: 209-13 F 3 '23

Chicago revised station plans embody new features. il plan Ry Age 72:323-6 F 4 '22

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Formal opening of Waterloo station. plans Engineer 133:336-7 Mr 24 '22

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Illinois Central announces plans for Chicago terminals. il diag Eng N 89:841-3 N 16 '22

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New freight terminal for the N.Y.N.H. & H.R.R. in Providence, R.I. il plan Ry R 69: 707-11 N 26 '21

New grain terminal, Locust Point, Baltimore & Ohio. plan Ry R 72:654-6 Ap 14 '23; Same. Eng & Contr (Ry) 59:1110-12 My 16 '23; Same cond. Ry Age 74:948-9 Ap 14 '23

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Pere Marquette R.R. builds new division terminal. diags plans Eng N 88:401-4 Mr 9 '22

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Proposed State st. terminal station at Chicago. plan Eng N 90:354 F 22 '23

Railroad freight terminal problem in St Louis. C: E. Smith. il diags maps Am Soc C E Pro 49:1464-1517, pl 4 S '23

Railroads—the arteries of commerce. J. R. Bibbins. diags map Am Soc C E Pro 49: 1417-31 S '23; Same. Eng & Contr (Ry) 60: 317-27 Ag 15 '23

Recommend improvements for St Louis terminal. map Eng N 89:17 Jl 6 '22

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Street development in relation to railroad terminals. J. L. Crane, jr. diags plan Am Soc C E Pro 49:1519-25 S '23; Same. Ry R 73:91-4 Jl 21 '23; Same. Eng & Contr (Ry) 60:311-14 Ag 15 '23; Same cond. Ry Age 75:152-3 Jl 28 '23

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Terminal engineering of the past year. il plan Ry R 72:430-45 Mr 10 '23

To improve railway terminals at Bombay, India. map Eng N 89:485 S 21 '22

Turnout slips and crossings, Chicago union station. diags Ry R 72:765-7 My 5 '23

Railroads—Terminals—*Continued*
What would you suggest for improvement of the modern passenger terminal. Ry R 73: 71-2 Jl 14 '23

See also Electric railroads—Terminals; Freight houses; Freight tunnels; Locomotive terminals; Mail terminal buildings; Railroads—Stations; Railroads—Yards; Terminals

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Ties
See Railroad ties

Tools
See Railroads—Shops—Equipment

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Cost
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Railroads—Track elevation—*Continued*
Grade separation in U.S. il Ry R 72:419-22 Mr 10 '23
Handling concrete with railway motor cars in track elevation work at Aurora. il Eng & Contr (Ry) 59:1120 My 16 '23
Handling precast bridge slabs on track elevation; C. M. & St P. Ry. T. H. Strate. il Eng N 90:455 Mr 8 '23
Lackawanna continues grade crossing elimination. il diags plan Eng N 89:778-81 N 9 '22
Strengthening Chicago track elevation subways. diags Ry Age 73:199-200 Jl 29 '22
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See also Elevated railroads—Track; Grade crossing elimination

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See also Freight car service; Railroads—Freight; Railroads—Passenger traffic

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Administration

See Highway administration

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See Highway inspection

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See Highway law

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See Road maps

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Difficult highway grading on iron range. il map Eng & Contr (R & S) 59:28-32 Ja 3 '23
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West Virginia

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Road marking and signing in Wisconsin. N. M. Isabella. Good Roads 62:214-16 Ap 12 '22

Wyoming

Construction methods on a canyon-side road in Wyoming. R. L. Silver. il diags map Eng N 90:988-91 Je 7 '23

Roads, Asphalt
Asphalt roads of the Texas panhandle. O. A. Seward, jr. il Eng & Contr (R & S) 56:181-2 D 6 '22
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Testing

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Roads, Bituminous
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Roads, Bituminous—*Continued*
Experiments in improving and maintaining our prairie roads of Alberta with bitumen and soils. K. A. Clark. Can Eng 42:658-9 Je 27 '22; Same. Eng & Contr 58:227-8 S 6 '22
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Sand asphalt pavement construction in North Carolina. E. R. Olbrich. Eng & Contr (R & S) 59:297 F 7 '23
Use of local mineral aggregates in bituminous macadam roads. W. A. Welch. Good Roads 62:117-18 F 22 '22; Same. Eng & Contr 57:105-6 F 1 '22; Same. Can Eng 42:449 My 2 '22; Same cond. Pub Works 52: 370 My 20 '22

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Maintenance and repair

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Specifications

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Roads, Bituminous concrete
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Illinois first black base highway. G. Abson. il Munic Eng 65:168-71 O '23

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Brick on waterbound macadam with penetration curb. C. H. Henning. il diags Eng N 91:468-9 S 20 '23
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Resurface concrete road with brick. il Brick & Clay Rec 62:768-9 My 1 '23
Rolled-base brick roads in Ohio. A. T. Goldbeck and F. H. Jackson. il Pub Roads 4: 19-21+ N '21; Same. Eng & Contr 56:528-9 D 7 '21
Rolled base endorsed for brick road construction. Eng N 88:273-4 F 16 '22

See also Pavements, Brick

Testing

Tests of impact on pavements by the Bureau of public roads. C. A. Hogentogler. il diags Pub Roads 4:3-18 O; 1-18 N '21; Abstract. Eng N 87:944-7 D 8 '21

Roads, Concrete
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Combination cast iron and concrete pavement. diag Eng & Contr 56:497 N 30 '21
Concave concrete pavement. S. H. Walker. diag Eng & Contr 58:217 Ag 30 '22
Concrete pavement sections with thickened edges. diags Eng & Contr (R & S) 60:20-1 Jl 4 '23; Same. Can Eng 45:311-12 S 11 '23; Same. Concrete 23:156-7 O '23
Concrete road built of precast slabs as experiment. il Eng N 91:711-12 N 1 '23
Concrete road construction in Manchester. Can Eng 45:275 Ag 28 '23
Concrete road foundations. Can Eng 45:105 Jl 3 '23
Concrete road reinforced with job-assembled mats. diag plan Eng N 89:244 Ag 10 '22
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First concrete road. W. A. Gillette. Eng & Contr (R & S) 56:163 D 6 '22

Roads, Concrete—*Continued*

Fifteen miles of highway concreted from a central mixing plant. il Pub Works 52:195-6 Mr 18 '22

French experiments in concrete paving. M. Varvier and E. Nicolas. Eng & Contr (R & S) 59:1265-7 Je 6 '23; Same. Can Eng 45: 331-2 S 18 '23

Good season's record in highway work in Kansas. A. A. Anderson. il Pub Works 52: 68-72 Ja 28 '22

Handling a 140-mile road contract in Arizona. il Concrete 19:170-2 N '21

High standard concrete roads in North Carolina. diags plan Eng N 89:315-16 Ag 24 '22

Horicon-Beaver dam road. il Pub Works 51: 499-500 D 31 '21

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Improvement in center joints for concrete road. C. V. R. Fullenwider. il Munic Eng 64:21-3 Ja '23

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Jointed concrete pavement in New York state. diags plans Eng N 88:918-19 Je 1 '22

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New concrete road section for New York. diag Eng N 90:498 Mr 15 '23

New cross section for Illinois concrete pavements. Eng & Contr (R & S) 58:82 N 1 '22

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New method of making concrete roads. il diags plan Engineer 132:465-6 O 28 '21; Excerpts. Eng & Contr 56:505 N 30 '21

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Precast concrete slab road after fourteen months' use. il Eng N 89:516 S 28 '22

Pre-cast concrete units for roads. Can Eng 43:588 N 28 '22

Recent British concrete road practice. F. Johnstone-Taylor. diags Eng N 90:405-6 Mr 1 '23

Reinforcing steel for road use. C: W. Geiger. il diags plans Iron Age 108:1222-3 N 10 '21

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Some construction features of 13-mile concrete road in Illinois. F. C. Feutz. il Eng & Contr (R & S) 58:89-90 N 1 '22

Special methods in using slag in concrete roads. il Eng N 88:58-9 Ja 12 '22

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What 1921 developed in paved road design. Eng N 88:61 Ja 12 '22

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Winter construction of concrete roads; an interview with W. W. Fisher and Joseph Gradison. C. S. Hill. il Eng N 90:1082-4 Je 21 '23

See also Pavements, Concrete; Roads, Bituminous concrete

Construction equipment

Bucket loader charges batch boxes from stock piles. plan Eng N 88:52 Ja 12 '22

Carefully planned layout speeds construction on North Carolina road job. il Munic Eng 61:sup21-5 D '21

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Roads, Concrete—Construction equipment—*Cont.*
Device supports finishing machine in concrete street paving. G. E. Wright. diag Eng N 90:269 F 8 '23
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Mechanical labor saving devices in road work. W. S. Cumming. Eng & Contr (R & S) 59: 536-9 Mr 7 '23
Methods of constructing Perryville-Port Deposit road. A. F. Shure. il Eng & Contr (R & S) 59:12-14 Ja 3 '23
Multiple-batch charging plant for truck haulage. il Eng N 88:74-5 Ja 12 '22
Plant and methods used in building mile concrete road per week. il Munic Eng 64:19-22 Ja '23
Road built on sandy shore using sectional planking. il Pop Mech 37:589 Ap '22
Road construction through Coachella desert. il Eng & Contr (R & S) 59:60-4 Ja 3 '23
Sand and gravel rehandled for concrete road. il Pub Works 52:212 Mr 25 '22
Simple plant layout on concrete paving job. G: W. Zenor. diags Eng & Contr (R & S) 60:24-5 Jl 4 '23
Unusual construction methods on concrete road job. il Eng & Contr 56:413 N 2 '21
See also Concrete mixing—Central plants

Construction schedules
How much time is lost in delays in highway construction. H. K. Davis. Concrete 22:116-19 Mr '23; Same. Eng & Contr (R & S) 59: 315-19 F 7 '23; Same. Good Roads 64:97-9+, 111 Mr 14-21 '23
Progress and plant co-ordination, concrete road work. A. E. Page. Eng N 91:98-9 Jl 19 '23
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See also Roads, Concrete—Rapid construction

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Cost of industrial railway haulage on Texas road job. Eng & Contr 57:28 Ja 4 '22
Cost of peen-hammering concrete road surface. T. M. Ripley. Eng N 90:268 F 8 '23

Forms
Distinctive road form. il Sci Am 129:44 Jl '23
Setting forms on vertical curves for concrete paving. R. E. Behrens. diags Eng N 91:233-4 Ag 9 '23
Steel road forms. J. D. Ackenheil. Concrete 22:119 Mr '23

Maintenance and repair
Asphalt used to repair concrete roads. Good Roads 64:199-200 My 23 '23
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Maintenance methods and costs on Wayne county roads. L. C. Smith. Eng N 90:739-40 Ap 26 '23

Rapid construction
Building road a mile a week. il Concrete 22: 34-5 Ja '23
Building 7.63 miles of 18-foot concrete highway in 67 days. Pub Works 51:484-5 D 24 '21
Half-width concrete pavement is laid with unusual speed. T: J. Wasser. il Eng N 90: 80 Ja 11 '23
Rapid construction of concrete road. il Pub Works 52:298 Ap 29 '22

Rhoubenite process
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Specifications
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Testing
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Concrete highway test at Pittsburg, California. C. Geiger. il diag Concrete 21:23-5 Jl '22
Concrete road tests completed at Pittsburgh, Cal. Eng N 89:558 O 5 '22
Development of apparatus for field testing of roads. H. F. Clemmer. Can Eng 44:450-2 My 1 '23; Same, with il. Eng & Contr (R & S) 60:248-51 Ag 1 '23
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Effect of 50-ton two-wheel load on concrete test road. il Eng N 89:893 N 23 '22
Elaborate highway tests made with tunnels beneath roadway. il Pop Mech 37:86-7 Ja '22
Government road tests show progress. il Eng & Contr (R & S) 58:9-11 O 4 '22
Pittsburg road tests. Concrete 23:126-7 S '23
Pittsburg test highway. C: W. Geiger. il Pub Works 52:23-5, 102-4, 118 Ja 14, F 11-18 '22
Pocket strain gage gives stresses in concrete roads. A. T. Goldbeck. il diags plans Eng N 90:575-6 Mr 29 '23
Practical lessons from the Bates road tests. il Eng N 90:57-61 Ja 11 '23
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U.S. Bureau of public roads' traffic tests at Arlington. il Eng & Contr (R & S) 56:132-4 D 6 '22
Variety of movements occur in concrete test highway. il diags Eng N 87:1048-51 D 29 '21

Roads, County
County road work discredited in Nebraska. Eng N 89:61 Jl 13 '22

Roads, Earth
Blade grader road building and maintenance. il Eng & Contr (R & S) 59:531-3 Mr 7 '23
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Methods and cost of constructing experimental earth road near Champaign, Ill. il Eng & Contr 58:114-15 Ag 2 '22
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Roads, Earth—*Continued*

Maintenance and repair

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Maintenance of roads. E. H. Morey. Can Eng 43:158 Jl 18 '22
Maintaining earth roads in Iowa with blade grader and drag. W. H. Root. Munic Eng 64:130-2 Mr '23; Same. Good Roads 64:49-50 Ja 31 '23; Same. Can Eng 44:459-60 My 1 '23; Same. Eng & Contr (R & S) 59:993-5 My 2 '23

Roads, Experimental

Bates experimental road of Illinois. C. Older. il Eng & Contr 57:199-204 Mr 1 '22; Same. Good Roads 62:151-60 Mr 15 '22; Abstract. Eng N 88:80-3 Ja 12 '22
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Developments in the scientific testing of road surfaces, subgrades and materials; equipment and methods developed for use on the Bates and Arlington experimental roads. il Eng & Contr 57:547-9 Je 7 '22
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Consult the Agricultural Index for additional material

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Uniflow engine principle and design. F: W: Bosch. il diags Power Pl Eng 26:1144-6, 1197-9; 27:124-6 D 1-15 '22, Ja 15 '23
Watson vertical uniflow steam engine. il diags Engineering 115:742, 743 Je 15 '23; Discussion. C: R. King. 115:771 Je 22 '23

See also Steam engines—Exhaust

Steam fitting. See Steam pipes

Steam flow
Capacities of steam heating mains as affected by critical velocities of steam and condensate mixtures. F. C. Houghten and L. Ebin. il diag Am Soc Heat & V E J 28:643-8; Discussion. 649-53 S '22; Abstract. Heat & Ven 19:56-7 Jl '22
Critical velocity of steam in one-pipe systems. F. E. Giesecke. diags Am Soc Heat & V E J 28:637-42 S '22; Same cond. Power Pl Eng 26:914-15 S 15 '22; Discussion. Am Soc Heat & V E J 28:649-53 S '22
Critical velocity of steam with counterflowing condensate. W: A. Pearl and E. B. Parker. diags Heat & Ven 20:46-9 O '23; Abstract. Power 58:514 S 25 '23
Data from flow-meter charts. J. A. Maguire. charts Power 55:1026-7 Je 27 '22
Easy way to figure steam-pipe sizes. M. W. Ward. Power 56:808-9 N 21 '22
First and second reports of the steam-nozzles research committee. diags Engineering 115: 377-83 Mr 23 '23; Abstract. Engineer 135: 319-20 Mr 23 '23; Discussion. Engineering 115:356-8, 501-2 Mr 23, Ap 20 '23; Engineer 135:320-1, 415-16 Mr 23, Ap 20 '23
Flow of air and steam in nozzles. G. Stoney and N. Elce. Engineering 112:750-1 D 2 '21; Abstract. Mech Eng 44:119 F '22
Flow of steam in pipes; high pressure distribution systems; chart. Heat & Ven 19:67 Ja '22
High velocity steam mains. C: Hurst. diags Power Pl Eng 26:117-18 Ja 15 '22; Discussion. H. D. Fisher. 26:238-9 F 15 '22
Investigative work at the A.S.H.-V.E. research laboratory. F. P. Anderson. il Am Soc Heat & V E J 28:773-87 N '22
Losses in nozzles of rectangular section. D. S. Anderson. diags Engineering 113:764-7 Je 16 '22
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Reaction consequent upon the evaporation of a liquid and upon the emission of vapours from small orifices. W. G. Duffield. diags Philos Mag 6th ser 45:641-88 Ap '23
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See also Steam meters

Steam generators, Electric. See Boilers—Electric heating

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Chambersburg single frame guided ram steam hammer. il Ry Mech Eng 97:592 Ag '23
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Hammer rigged to follow pile down under water. il diags Eng N 91:225-6 Ag 9 '23
History indicates forging was ancient art. F. Somers. diags Iron Tr R 73:389-91+ Ag 9 '23
Inverted steam hammer drives piling upward. il Pop Mech 37:560 Ap '22
Piston rods for steam drop-hammers. A. A. Blue. diags Iron Age 112:415-17 Ag 16 '23

Steam heaters
Portable unit fan blast heaters. il diags Heat & Ven 19:68-9 Jl; 50-1 Ag '22
Solving heating and ventilating problems by means of unit heaters. J. Mackay. il diags Dom Eng 102:215-18 F 3 '23
Steam in four minutes. il Sci Am 126:339-40 My '22

Steam heaters, Industrial
Allen heater for high-density solution. diags Chem & Met Eng 29:194 Jl 30 '23

Steam heaters for fuel oil. See Oil heaters

Steam heating
Capacities of steam heating mains as affected by critical velocities of steam and condensate mixtures. F. C. Houghten and L. Ebin. il diag Am Soc Heat & V E J 28:643-8; Discussion. 649-53 S '22; Abstract. Heat & Ven 19:56-7 Jl '22
Centralized control of steam-heating system based on outside temperature. diags Power 58:528-30 O 2 '23
Constructive advancement in heating methods. A. G. King. Dom Eng 98:11-13 Ja 7 '22
Critical velocity of steam in one-pipe systems. F. E. Giesecke. diags Am Soc Heat & V E J 28:637-42 S '22; Same cond. Power Pl Eng 26:914-15 S 15 '22; Discussion. Am Soc Heat & V E J 28:649-53 S '22
Data on air-line vacuum heating system. T. W. Reynolds. diags Heat & Ven 19:52-4 Je '22
Eliminating noise in heating systems. H. A. Jahnke. diags Power Pl Eng 26:666-8 Jl 1 '22; Discussion. M. W: Ehrlich. 26:963 O 1 '22
Experience with steam heating installation. M. H. Brown. diag Power 57:303 F 20 '23
Heating a modern hospital. C: L. Hubbard. il diags Dom Eng 100:572-6+ S 30 '22
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Heating of medium-sized buildings. C: L. Hubbard. diags Dom Eng 103:487-90 Je 9 '23
Heating system of the General fire extinguisher co. C: L. Hubbard. il chart diags plan Power Pl Eng 26:591-5 Je 15 '22
Heating systems for cottages and bungalows. A. G. King. diags plans Dom Eng 105:8-12, 110-14 O 6, 20 '23
High-pressure steam-heating lines. E. Buckingham. Mech Eng 44:641-2 O '22; Same. Am Soc Heat & V E J 28:877-82 D '22
How a heating contractor heats his own house. L. M. Emmet. plans Dom Eng 101: 221-2 N 11 '22
How a steam heating problem was solved in a building which had no cellar. J: K. Raymond. Dom Eng 98:528 Mr 25 '22
Illinois heat retainor. il diags Heat & Ven 20: 60-1 My '23
Importance of proper condensation control. M. C. W. Tomlinson. Heat & Ven 19:35 Mr '22
Improvements reduce waste. H. A. Jahnke. diags Power Pl Eng 27:638-9 Je 15 '23
Improving steam distribution. A. J. Dixon. diag Power 55:71 Ja 10 '22
Is there any saving in vacuum heating? A. L. Browne; C. A. Fuller; E. R. Pierce. charts Heat & Ven 20:37-43, 68-9 F '23; Discussion. 20:47 Ap '23
Kinks for steam fitters. diags Dom Eng 94:334-6; 97:153-4, 249-50, 350-1, 436-8, 526-7, 625-6; 98:167-8, 213-14, 353-4, 491-2; 99: 233-4 F 12, O 22, N 5, 19, D 3, 17, 31 '21, Ja 28-F 4, 25, Mr 18, My 6 '22

Steam heating—*Continued*
Low and high pressure steam piping. L. M. Emmet. Dom Eng 104:173-5+, 231-2+ Jl 28-Ag 4 '23
Modern heating for the home. M. G. Hook. diags Sanitary & Heat Eng 100:212-14+, 274-5+ O 5, N 2 '23
Municipal steam heating system at Cleveland, Ohio. H. W. Kaiser. il diags map Am Water Works Assn J 8:559-70 N '21
Novel application of indirect heating. C. H. Thomas. il diags Power Pl Eng 27:1026-8 O 15 '23
One-pipe vapor heating system. il Sanitary & Heat Eng 96:391-2+ D 30 '21
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Small steam heating system, located below the boiler. L. M. Emmet. diags plans Dom Eng 98:488-9 Mr 18 '22
Standard piping details; piping for a low-pressure boiler on one pipe gravity steam heating system, with two circuits. diags Dom Eng 101:382-3 D 2 '22
Steam heating. 367p Warren Webster & co., Camden, N.J. '22
Steam heating system for a fourteen-room house. C: L. Hubbard. plans Dom Eng 99: 11-13, 53-4 Ap 1-8 '22
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Steam waste in heating railroad coaches. T. W. Reynolds. diags Heat & Ven 19:36-9, 41-5 My-Je '22
Temperature control by fractional distribution of steam in large one and two-pipe systems. J. A. Donnelly. diags Am Soc Heat & V E J 28:404-6 My '22
Three different methods of heating a large machine shop. J. Mackay. diags plans Dom Eng 102:557-60 Mr 24 '23
Trouble with water-logged pipe coils. diags Heat & Ven 19:47-8 Ap '22
Unusual heating job; changes in the heating system of Garden pier at Atlantic City. il plans Dom Eng 102:272-3 F 10 '23
Vacuum heating. J. E. Seiter. Power 58:437-8 S 11 '23; Same. Textile World 64:2875+ N 10 '23; Abstract. Heat & Ven 20:52-4 Jl '23
Vacuum system with steam operated vacuum pump. J. Mackay. diag Dom Eng 103: 584-5 Je 23 '23; Discussion. J. J. Hayes. Dom Eng 104:124-5 Jl 21 '23
Value and method of steam generating plant interconnection. J. C. Butler. diags Heat & Ven 19:35-9 Ag '22
Vapor heating systems. E. R. Pierce. diag Dom Eng 101:173-5, 273-5, 365-7+, 475-7, 573-6; 102:32-4, 171-4 N 4, 18, D 2, 16, 30 '22-Ja 6, 27 '23
Vapor heating; the Donnelly fractional distribution system. diags Heat & Ven 18: 64-5 D '21; 19:64-6 Ja '22
Vapor heating; the dual system. il diag Heat & Ven 20:79-81 O '23
Vapor heating; the Illinois system. diags Heat & Ven 19:74-5 Jl '22
Vapor heating; the O-E perfect system. diags Heat & Ven 20:72-3 Mr '23
Vapor heating; the Richardson system. il diags Heat & Ven 18:64-5 N '21
Vapor heating; the Simplex system. Heat & Ven 20:75-7 Jl '23
Vapor system of heating in a seven-story apartment building. L. M. Emmet. diag plans Dom Eng 98:395-8 Mr 4 '22
Why the radiators would not heat. diags Power 55:151-2, 554-5 Ja 24, Ap 4 '22
World's largest gas heating plant; gas fired steam boilers at Los Angeles. S: S. Fyfe. il Gas Age 49:765-8 Je 24 '22
Young motor-pump set holds vacuum automatically. il Power 55:536 Ap 4 '22

See also Heating from central stations; Hot water heating; Radiators; Steam flow; Steam heaters; Steam pipe coverings; Steam pipes; Steam traps

Estimates
Example of unprofitable heating work. F. C. Clements. Dom Eng 102:82-3 Ja 13 '23

Return systems
Checkless method of returning condensation to a low pressure boiler. diags Dom Eng 100: 317-19 Ag 19 '22
Practice endorsed of connecting returns at water level of boiler. diag Heat & Ven 19:53 Ag '22
Returning condensation to boiler. M. W: Ehrlich. chart diags Sanitary & Heat Eng 100:9-12 Jl 13 '23
Theory for the flow of condensation in return pipes, with discussion. R. V. Frost. Am Soc Heat & V E J 28:655-63 S '22
Water returns to steam heating boilers. diag Am Soc Heat & V E J 28:338-42 Ap '22; Same. Power 55:746-7 My 9 '22; Same cond. Power Pl Eng 26:380-1 Ap 1 '22

Tables, calculations, etc.
Capacities of steam heating risers as effected by critical velocity of steam and condensate mixtures. F. C. Houghten and L. Ebin. il diag Am Soc Heat & V E J 29:115-30 Mr '23
Checking steam waste in large buildings. charts Heat & Ven 19:38-40 S '22
Estimating heat losses and figuring radiation. plan Dom Eng 101:581-2+ D 30 '22
How much steam is required to heat a building? Heat & Ven 19:26 Mr '22
New data on intermittent heating. Heat & Ven 19:48 My '22
Radiation computing; charts. Heat & Ven 19: 68-9 Je '22
Ready-to-serve charge in steam heating. M. C. W. Tomlinson. Heat & Ven 19:31-2 F '22
Recent data on exhaust steam for heating. Heat & Ven 19:35-8 Jl '22
Steam consumption for car heating. Heat & Ven 18:43-4 D '21
Steam consumption in various types of buildings in Detroit. Power 58:361-2 S 4 '23
Steam heating system for a fourteen-room house. C: L. Hubbard. plans Dom Eng 99:11-13, 53-4 Ap 1-8 '22
Theory for the flow of condensation in return pipes. R. V. Frost. Am Soc Heat & V E J 28:655-9 S '22; Abstract. Power Pl Eng 26: 863-4 S 1 '22; Discussion. Am Soc Heat & V E J 28:659-63 S '22
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What it pays to know about heating. M. W: Ehrlich. Sanitary & Heat Eng 97:272-4; 98:33-5, 352-4+ My 19, Jl 28, D 15 '22

Testing
Comparative heat losses from saturated and superheated steam lines. Heat & Ven 20: 54-5 Ag '23

Steam hose. See Hose

Steam-jet-furnace. See Furnaces, Boiler—Turbine furnace

Steam jets
Determining the consumption of steam jets. Power 57:728, 1032-3 My 8, Je 26 '23
Measuring steam used by jet blower. diag Power 57:113 Ja 16 '23
Steam jet ash conveyor; its history and latest developments. G: F. Zimmer. il Eng & Ind Management 7:262-4 Mr 9 '22

Steam measurement
Oil-burner steam-consumption measurement. A. F. Brewer. diag Power 55:689 My 2 '22

Steam meters
Cadillac condensation meter. il diags Power Pl Eng 26:928 S 15 '22
Data from flow-meter charts. J. A. Maguire. charts Power 55:1026-7 Je 27 '22
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Special means of calibrating steam-flow meter. L. E. Brown. Power 56:139-40 Jl 25 '22
What the steam-flow meter told C. G. Weber. diag Power 55:341-2 F 28 '22

See also Steam flow

Steam motor buses. See Motor buses, Steam

Steam motor cars. See Motor cars (railroad)—Steam

Steam motor trucks. See Motor trucks, Steam

Steam pipe coverings
Boiler and pipe covering tests. Power 55:747 My 9 '22
Conservation of heat in power and heating systems. E: R. Weidlein. flowsheet il Am Inst Chem Eng Trans v 13 pt 2:25-40; Discussion. 40-2 '20-'21
Efficiency of steam pipe coverings at high temperatures. diags Engineering 114:155 Ag 4 '22
Fuel economy by the adoption of scientific management in steam generation and utilisation. D: Brownlie. il Eng & Ind Management 6:720-2; 7:39-41 D 22 '21, Ja 12 '22
Heat losses from steam line pipes. R. H. Heilman. il Blast F & Steel Pl 10:261-5 My '22; Same cond. Mech Eng 44:435-7 Jl '22; Same. Chem & Met Eng 27:63-5 Jl 12 '22; Abstracts. Power 55:783 My 16 '22; Textile World 62:73 Jl 1 '22
How to apply heat insulation. P. W. Swain. diags Power 56:354-7 S 5 '22
Importance of insulation of steam lines in train yards. T. W. Reynolds. Heat & Ven 19:45 Mr '22
Insulation in power plants. L. B. McMillan. diags Blast F & Steel Pl 11:447-9+ Ag '23

See also Magnesia, Insulating

Steam pipes
Cause of vibration in steam pipes. A. J. Dixon. diags Power 55:472 Mr 21 '22
Changes made necessary by reduction of steam pressure. W. H. Wakeman. diags Dom Eng 102:124-6 Ja 20 '23
Chart for selecting steam pipe. W. F. Schaphorst. Power Pl Eng 27:332 Mr 15 '23; Same. Textile World 63:2609+ Ap 21 '23
Critical velocity of steam with counterflowing condensate. W: A. Pearl and E. B. Parker. diags Heat & Ven 20:46-9 O '23
Desirable sleeve for steam risers. diag Dom Eng 104:285-6 Ag 11 '23
Draining the heating system. H. A. Jahnke. diags Power Pl Eng 26:475-7 My 1 '22
Easy way to figure steam-pipe sizes. M. W. Ward. Power 56:808-9 N 21 '22
Flow of steam in pipes; high-pressure distribution systems; chart. Heat & Ven 19:67 Ja '22
High pressure and temperature steam lines; abstracts. B. N. Broido. Power Pl Eng 27: 221-4 F 15 '23: Power 56:913-14 D 12 '22; Mech Eng 45:289-93; Discussion. 293-4 My '23
High-pressure steam requires special care. W. S. Finlay, jr. il diag Power Pl Eng 27:61-4 Ja 1 '23
High velocity steam mains. C: Hurst. diags Power Pl Eng 26:117-18 Ja 15 '22; Discussion. H. D. Fisher. 26:238-9 F 15 '22
Holly steam loop. E. C. Wells. diag Power Pl Eng 26:1218 D 15 '21
How the leaks were stopped. W. F. Schaphorst. diags Power Pl Eng 27:639 Je 15 '23
Improvised pipe hangers and supports for heavy steam mains. W. H. Wakeman. diags Dom Eng 101:10-12 O 7 '22
Joint articulé pour conduites de vapeur, système Andrews et Cameron. diags Génie Civil 80:366 Ap 22 '22
Kinks for steam fitters. diags Dom Eng 94: 334-6; 97:153-4, 249-50, 350-1, 436-8, 526-7, 625-6; 98:167-8, 213-14, 353-4, 491-2; 99:233-4 F 12, O 22, N 5, 19, D 3, 17, 31 '21, Ja 28-F 4, 25, Mr 18, My 6 '22
Low and high pressure steam piping. L. M. Emmet. Dom Eng 104:231-2+ Ag 4 '23
Oxy-acetylene used on high pressure steam line. il diag Sanitary & Heat Eng 100:205-7 O 5 '23
Pipe welding in steam heating work. G. B. Nichols. il Heat & Ven 20:41-2 Mr '23
Piping equipment for a hotel building. E. Cunningham. diags Dom Eng 99:410-12 Je 3 '22
Piping for power and steam pumps. W. H. Wakeman. diags Dom Eng 103:214-15 My 5 '23
Pressure drop methods of figuring pipe sizes. Heat & Ven 19:49 Ja '22
Problem in unequal expansion of pipe lines. diags Heat & Ven 19:42-3 Mr '22
Report of committee on steam and return main sizes; discussion. Am Soc Heat & V E J 28:577-8 Jl '22
Return pipe sizes for vapor and vacuum heating system. M. G. Hook. Heat & Ven 20:62-3 Jl '23
Standard piping details. diags Dom Eng 102: 322-3 F 17 '23
Steampipe arrangements. E: Ingham. Elec R (Lond) 91:224-5 Ag 18 '22
Steam pipe explosion from water hammer action. Engineering 112:839 D 16 '21
Stop valves and header connections. W. H. Wakeman. diags Power 56:486-8 S 26 '22
Test to determine the pressure caused by expansion of a U-pipe bend. A. E. Walden. diags Mech Eng 44:612-13 S '22
Underground steam main construction; experiments in state institution with hot water heating through direct injection of high pressure steam. J: K. Raymond. diags plan Dom Eng 104:384-6 Ag 25 '23
Valves and piping for high pressure steam lines. D. H. Skeen. diags Power Pl Eng 27: 565-6 Je 1 '23
What it pays to know about heating. M. W. Ehrlich. diags Sanitary & Heat Eng 98:221-3 O 20 '22

See also Heating from central stations; Pipe fittings; Piping (power plants); Steam flow; Steam heating; Steam pipe coverings; Steam traps

Repair
Difficult pipe job. R. D. DeWolf. il Power 56:322-3 Ag 29 '22
Leaking steam line repaired by welding. il Power Pl Eng 27:879 S 1 '23
Welding underground steam mains. Power 56: 49 Jl 11 '22

Specifications
Proposed A.S.M.E. rules for piping and fittings. Power 56:702-4 O 31 '22

Standards
Pressures adopted for standardizing high-pressure pipe fittings. Power 58:750 N 6 '23

Steam plants
Abstract of prime movers committee report. Power 57:947-50 Je 12 '23; Elec W 81:1353-6 Je 9 '23
American printing co.'s plant at Fall River. il diags plan Power Pl Eng 26:1037-42 N 1 '22
American 300,000-Kw. power station at a coal mine; the Colfax plant. diags plan Engineer 133:231-4 Mr 3 '22

Steam plants—*Continued*
Auxiliary system and heat balance at the Delaware station of the Philadelphia electric company. E. L. Hopping. diags Mech Eng 43:790-3 D '21; Excerpts. Power 54:957-8 D 20 '21; Excerpts. Power Pl Eng 26: 114-15 Ja 15 '22; Discussion. Power 54:960 D 20 '21; Mech Eng 44:25-6+ Ja '22
Barbadoes Island plant illustrates modern central station design. il diags Power Pl Eng 27:965-73 O 1 '23
Battle Creek steam plant of Consumers power company. W. W. Tefft. il diags plan Power 55:880-5 Je 6 '22
Benson super-pressure plant. P. W. Swain. il diags plan Power 57:796-801, 842-6 My 22-29 '23; Abstract. Elec R (Lond) 92: 955-6 Je 15 '23; Discussion. Power 58:190-1 Jl 31 '23
Calumet station, Commonwealth Edison co. il diags plan Power 55:842-51 My 30 '22; Excerpts. Elec Ry J 59:897-901 Je 3 '22; Elec W 79:1110-14 Je 3 '22
Calumet station; details of construction of the latest addition to Chicago's vast electrical system. il diags plans Power Pl Eng 26: 497-508 My 15 '22
Centralized control of a medium size power plant. L. M. Emmet. diag Dom Eng 103: 112-13 Ap 21 '23
Choice of steam conditions in modern power stations. L. C. Kemp. Electrician 88:774-7 Je 30 '22
Le choix de la pression et de la température dans les centrales modernes. Génie Civil 81:163 Ag 12 '22
Coal economy with small steam power plants. J. J. Brennan. Elec R 79:761-3 N 19 '21
Commercial economy of high pressures and temperatures. G: A. Orrok. diags Power 56: 684-7 O 31 '22; Same. Mech Eng 44:706-8 N '22; Same cond. Elec W 80:1205-7 D 2 '22; Same cond. Power Pl Eng 26:1150-2 D 1 '22; Discussion. Mech Eng 45:64-5 Ja '23; Power 56:914 D 12 '22; Elec W 81:104 Ja 13 '23
Consumers' power 100,000-kw. plant at Zilwaukee. Elec W 81:1108-9 My 12 '23; Power 57:758-9 My 15 '23; Power Pl Eng 27:546-8 My 15 '23
Control of power production. C: L. Hubbard. diags Factory 31:451-2+, 602-5+ O-N '23
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Design features of Cahokia station. diag plan Elec W 80:1461-3 D 30 '22
Development at the Colfax station of the Duquesne light company. J. M. Graves. il plan Elec J 20:198-201 Je '23
Development of high pressure steam boilers. D. S. Jacobus. diags Power Pl Eng 27:1047-50 O 15 '23; Same. Engineer 136:400-1 O 12 '23; Same cond. Power 58:587-8 O 9 '23; Excerpt. Elec W 82:699-701 O 6 '23; Discussion. Elec W 82:817-18 O 20 '23
Driving power-house auxiliaries. W. H. Smith. il Power 55:166-9 Ja 31 '22
Economic generation of power. L. L. Bowen. Power Pl Eng 27:767-9 Ag 1 '23
Economical steam plant. W. H. Wakeman. diags Power 56:464-5 S 19 '22
Economical use of steam in a sugar refinery. C. C. Brown. il chart Power Pl Eng 27:923-7 S 15 '23
Effect of feedwater heating on plant economy. G. G. Bell. Mech Eng 45:417-20+ Jl '23; Same cond. Power Pl Eng 27:777-81 Ag 1 '23
Exhaust steam turned to profit. il diags Power Pl Eng 27:911-17 S 15 '23
Furniture plant uses wood refuse as fuel. il diags plans Power Pl Eng 27:303-8 Mr 15 '23
Gennevilliers electric power station. diag Engineer 134:242-3, 267, 270-2, 294 S 8-22 '22
Gennevilliers steam power station; abstract. G. Mercier. Elec W 80:85 Jl 8 '22
Gennevilliers super-power station of the city of Paris. R. H. Andrews. il diag (supp) Power 56:156-62, 232-6, 296-7 Ag 1-22 '22; Excerpts. Mech Eng 44:829-31 D '22
Good engineering characterizes new steam plant of the Abilene gas and electric co., Abilene, Tex. il Power Pl Eng 27:316-17 Mr 15 '23
Grand Tower high-pressure steam station. Power 56:886 D 5 '22
Hartford electric light company's South Meadow station. il diags plan Power 54:872-82 D 6 '21
Heat balance at Colfax station. C. W. E. Clarke. diags Mech Eng 43:795-6+ D '21; Same cond., with table. Power 54:959-60 D 20 '21; Excerpt. Power Pl Eng 26:116-17 Ja 15 '22; Discussion. Power 54:960 D 20 '21; Mech Eng 44:25-6+ Ja '22
Heat balance of the Conners Creek plant of the Detroit Edison company. C. H. Berry and F. E. Moreton. diags Mech Eng 44:22-5 Ja '22; Same cond. Power 54:958 D 20 '21; Discussion. Mech Eng 44:25-6+ Ja '22; Power 54:960 D 20 '21
Heat-balance system for Hell Gate station. J. H. Lawrence and W. M. Keenan. diags plan Mech Eng 43:793-5 D '21; Same cond. Power 54:956 D 20 '21; Excerpt. Power Pl Eng 26:115-16 Ja 15 '22; Discussion. Power 54:960 D 20 '21; Mech Eng 44:25-6+ Ja '22
Hell Gate—a station of many features. il diags Elec W 79:820-7 Ap 29 '22
Hell Gate station of the United electric light & power company. H. W. Leitch. il diags plans Elec J 19:214-20 My '22
High pressure steam in small power plants. C: L. Hubbard. il diags Sanitary & Heat Eng 96:105-7, 136-8+, 199-201, 251-3+, 339-41, 403-6; 97:33-5 Ag 12, 26, S 23, O 21, D 2, 30 '21, Ja 27 '22
High-pressure steam requires special care. W. S. Finlay, jr. il diag Power Pl Eng 27: 61-4 Ja 1 '23
Higher steam pressures and improvement in station economy. F. H. Bushnel. N E L A Bul 10:475-6 Ag '23; Same. Eng & Contr (W W) 60:292-3 Ag 8 '23; Same cond. Power 57:950 Je 12 '23; Abstract. Elec W 81:1329 Je 9 '23
Hospital plant at Middleton. R. E. Dockam. il plan Power Pl Eng 26:935-8 O 1 '22
How operating conditions of plant were improved. R. J. West. diags Power 57:530 Ap 3 '23
Huge savings possible by the use of by-product power. L: J. Sforzini. diags Power 57:624-8 Ap 24 '23
Improved station design shown at South Meadows. C. H. Reeder. il diags plan Elec R 79:905-10 D 17 '21
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Municipal power plant, Lansing, Michigan. O. E. Bulkeley. il diags plans Power 57:968-76 Je 19 '23

Steam plants—*Continued*
New Hell Gate power station of the United electric light and power company. il diags (supp) plans Power 55:678-86, 760-3 My 2, 16 '22
New Johns-Manville power plant designed by staff engineers. il diags plans Power Pl Eng 27:609-18 Je 15 '23
New Marysville plant, Detroit Edison co. C. H. Berry. il diags plan Power 57:824-30 My 29 '23
New Marysville plant handles increasing demand. P. W. Thompson. il diags plan Power Pl Eng 27:573-80 Je 1 '23
New plant for Pueblo, Colorado. il diags plan Power 57:922-6 Je 12 '23
New plant of the Badger state tanning co. il diags plans Power Pl Eng 26:547-53 Je 1 '22
New plant of the Fisher body Ohio co. il diags plan Power Pl Eng 26:201-9 F 15 '22
New steam plant at Amsterdam. il diags plans Power Pl Eng 26:639-45 Jl 1 '22
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See also Boiler plants; Boilers; Electric plants; Exhaust steam; Feed water heating; Hydroelectric plants—Auxiliary plants; Piping (power plants); Power plants; Steam; Steam engineering; Steam engines; Steam turbines

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Heat balance and steam distribution in a large service plant. S. D. Kutner. diag Power 55:488-91 Mr 28 '22

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Steam plants—Costs—*Continued*
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Backwoods engineering; reminiscences of the early struggles of an old timer with makeshift equipment. A. G. Collins. por Power 57:60-1 Ja 9 '23
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See also Steam pipes

Steam traps—*Continued*

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Steam turbine locomotives. See Electric locomotives, Steam turbine; Locomotives, Steam turbine

Steam turbines

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Steam turbines—*Continued*

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Phillips rubber-tube turbine expansion joint. il diags Power 57:556-7 Ap 10 '23

Failures

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Gearing

See Steam turbines, Marine—Gearing

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Steamed ground wood. See Wood pulp

Steamers. See Steamboats

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Fare boxes

See Street railroads—Fare collection

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See Car heating

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See Car lighting

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See Car painting

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See Car ventilation

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Schenectady street-car strike. Monthly Labor R 17:740-2 S '23

Selecting platform men. H. Vernon. Elec Ry J 60:235 Ag 12 '22

Selection and training of employees. M. McCants. Elec Ry J 60:679-81, 710-15 O 21-28 '22

Selling the employee on salesmanship. B. R. Bigelow. Elec Ry J 58:1111-12, 1143-4 D 24-31 '21

Selling transportation. G. I. Plummer. Elec Ry J 59:754-5 My 6 '22

Social insurance and transportation companies. Elec Ry J 59:229-32 F 11 '22

Standardized methods of employment. C. S. Yoakum. Elec Ry J 59:679-81 Ap 22 '22

Street railways—Massachusetts. Monthly Labor R 17:863-7 O '23

Street railways—Toledo. Monthly Labor R 15: 787-93 O '22

Strike at St John, N.B., a political issue. Elec Ry J 59:908 Je 3 '22

Strike in New Jersey. Elec Ry J 62:112, 154, 189-90, 230, 268-9, 307-9, 344-7, 386 Jl 21-S 8 '23

They have fun at the school of the Beaver Valley. il Aera 12:24-9 Ag '23

Training plan successful in Dallas. Elec Ry J 60:493 S 23 '22

Training platform men. W. A. Robertson. Elec Ry J 59:798 My 13 '22

Training railway employes. M. McCants. il Aera 11:1473-81 Je '23

Utilizing employes for selling. M. McCants. Aera 12:15-20 Ag '23

Vocational education in the electric railway business. H. M. Robinson. Elec Ry J 60: 810 N 18 '22

Vocational training at Nashville. Elec Ry J 62:222 Ag 11 '23

Working off the rough edge on prospective motormen. J. G. Jeffery. il Elec Ry J 61: 1037-8 Je 23 '23

Workmen's compensation claims considered as a continuing and increasing liability to electric railway companies. M. E. Burke. Elec Ry J 59:159-60 Ja 28 '22

See also Electric railroads—Employees; Street railroads—Wages

Equipment and supplies

Automotive equipment ordered during 1922. Elec Ry J 61:43-4 Ja 6 '23

Automotive equipment owned by electric railways. Elec Ry J 59:36-7 Ja 7 '22

How the manufacturers of electric railway supplies can help the industry. E. F. Wickwire. Elec Ry J 59:362-3 Mr 4 '22

Live railway topics practically discussed. Elec Ry J 60:951-2 D 16 '22

Points of interest about the Capital traction company. R. H. Dalgleish. il diags Elec Ry J 61:235-8 F 10 '23

What the manufacturer has to sell and what the railway company requires. J. C. Thirlwall. Gen Elec R 25:56-9 Ja '22

See also Electric motors, Railway; Electric railroads—Equipment and supplies; Street cars; Street railroads—Stores systems

Fare collection

Brooklyn tries automatic coin switch for registering fares. il diag Elec Ry J 60:356 S 9 '22

Change-making machine and fare box. il Elec Ry J 61:133 Ja 20 '23

Fare box prints transfer and registers coin. il Pop Mech 40:421 S '23

Fare collection at Providence. il Elec Ry J 61:1048 Je 23 '23

Fare collection on one-man interurban. il Elec Ry J 62:407-8 S 15 '23

Fare register and coin box electrically interlocked. il Elec Ry J 62:747 O 27 '23

Ingenious system solves double-carfare problem. diag Pop Mech 37:441 Mr '22

New fare box has many unique features. il Elec Ry J 60:355-6 S 9 '22

Pneumatic operation of fare boxes. il diags Elec Ry J 60:948-9 D 16 '22

Zone collections by machine on one-man cars. il Elec Ry J 58:953 N 26 '21

See also Electric railroads—Fare collection; Street railroads—Tickets and tokens

Fare sorting machine

Machine sorts receipts from locked fare boxes. R. S. Neal. il diag Elec Ry J 62:776 N 3 '23

Street railroads—Fare sorting machine—*Cont.*
Railway builds coin and ticket sorter. il Elec Ry J 58:1073 D 17 '21

Fares

Akron experiment in voluntary 1-cent fare premium. A. C. Blinn. Ry R 73:374-5 S 15 '23
Akron people respond to appeal for higher fare. E. B. Atchley. Elec Ry J 62:370-1 S 8 '23
Analysis of weekly pass at Youngstown. map Elec Ry J 58:1104-8 D 24 '21
Argument completed in Chicago case. Elec Ry J 58:1050 D 10 '21
Argument for the penny fare demonstrated by actual experience. E. Hatton. Elec R (Lond) 91:409 S 22 '22
Authorizes six-cent fare continuation in Dallas. Elec Ry J 61:1103 Je 30 '23
Bellingham railway offers five-cent fare as experiment. Elec Ry J 60:994 D 23 '22
California body ruled to be right in fixing different basis for local and interurban fares. Elec Ry J 62:467 S 22 '23
City council of Seattle tables Mayor's request for lower fare. Elec Ry J 60:894 D 2 '22
Commutation rate fixed in New Jersey. Elec Ry J 59:731 Ap 29 '22
Connecticut commission believes five-cent rate impracticable in large cities. Elec Ry J 60:960 D 16 '22
Dallas case before court. Elec Ry J 60:833, 961 N 18, D 16 '22
Demand rate charge applied to fares. R. Schaddelee. Elec Ry J 59:32-3 Ja 7 '22
Distance fare is logical railway rate. H: L. Doherty. Elec Ry J 59:942-3 Je 10 '22
Eight-cent fare in Jersey. Elec Ry J 61:1024 Je 16 '23
Fare controversy in Houston (Texas) settled by compromise. Elec Ry J 60:530, 796 S 30, N 11 '22
Fare fight in court; testimony of city of Fort Worth heard to compel Northern Texas traction company to reduce fares. Elec Ry J 60:411-12 S 16 '22
Fare injunction stands in Louisville. Elec Ry J 59:810 My 13 '22
Fares cut in Albany. Elec Ry J 60:63 Jl 8 '22
Fares increased in Detroit. Elec Ry J 62:314 Ag 25 '23
Five-cent fare order restrained in Chicago. Elec Ry J 58:1009 D 3 '21
Five-cent fare ordered in Bridgeport, Conn. Elec Ry J 58:924 N 19 '21
Five-cent fare to be tried in Jersey. Elec Ry J 62:539-40, 561-2 S 29-O 6 '23
Interchangeable scrip coupons; brief filed with Interstate commerce commission by American electric railway association and Central electric railway association sets forth attitude of industry. Aera 11:547-9 D '22; Abstract. Elec Ry J 60:858 N 25 '22
Killing the goose that lays the golden eggs. H: C. Spurr. Elec Ry J 62:607-9 O 13 '23
Lower court is upheld in Galveston fare case. Elec Ry J 59:718-21 Ap 29 '22
Lower fares in Hollywood. Elec Ry J 60:373 S 9 '22
Monthly identification card betters public relations. F. V. Skelly. Elec Ry J 60:784-5 N 11 '22
Monthly tickets please riders. B. J. Denman Aera 10:495-502 Ja '22
More fare modification in Connecticut. Elec Ry J 59:847 My 20 '22
New fare plan in Louisville. Aera 11:315-18 O '22
New York state railways must lower Syracuse rate—Utica fare goes up one cent. Elec Ry J 60:531 S 30 '22
Omaha fares unchanged. Elec Ry J 62:579-80 O 6 '23
Ordinance submitted includes sliding fare scale, Louisville, Ky. Elec Ry J 60:57 Jl 8 '22
Pass in Tacoma. C. V. Allen. Elec Ry J 60:1016-17 D 30 '22
Present and prospective development cost of railways and other public utilities. H. P. Gillette. Eng & Contr (Ry) 58:115-16 D 20 '22
Progress of the weekly pass. Aera 11:505-13 D '22
Publicity popularizing weekly pass in Fort Wayne, Ind. Elec Ry J 59:598-9 Ap 8 '22
Railways compelled to return to five-cent fare on legal technicality. Elec Ry J 59:846 My 20 '22
Rates of electric railway fare, legal requirements for bus operation and automotive competition in one hundred largest cities in United States. Aera 11:1106-17 Ap '23
Relative increases in wholesale commodity prices, wages and street railway fares. W. H. Burke. Eng & Contr 58:159 Ag 16 '22
Revenue increase from increased rates. J. Kappeyne. Elec Ry J 58:954 N 26 '21
Round table discussion on weekly pass. Elec Ry J 60:583-4 O 7 '22
Sale of the ride; the theory of the pass. W. Jackson. Elec Ry J 61:517-18 Mr 24 '23
Selling principle of the weekly pass. W. Jackson. Elec Ry J 61:176-8 Ja 27 '23; Discussion. 61:206-7 F 3 '23
Seven-cent fare justified in Fort Worth. Elec Ry J 61:397-8 F 17 '23
75,000,000 tickets for Detroit. Elec Ry J 62:350 S 1 '23
Six-cent fare ordered in Chicago. Elec Ry J 59:659 Ap 15 '22
Six cents in Galveston. Elec Ry J 60:797 N 11 '22
Sixty weeks of pass riding in Terre Haute, Ind. E. M. Walker. Elec Ry J 61:1086 Je 30 '23
Street railway fares in 638 cities. Eng & Contr (Ry) 59:896 Ap 18 '23
Ten cents in Levis; interesting commission decision covering eleven mile road beset by strike and fire. Elec Ry J 60:145-6 Jl 22 '22
Terre Haute starts weekly pass. Elec Ry J 59:789-91 My 13 '22
Trend of prices, wages and fares in 1922. Elec Ry J 61:22-4 Ja 6 '23
Trend of prices, wages and fares; variations during last ten years in wholesale prices and general construction costs and in electric railway material costs, wages and fares. chart Elec Ry J 59:995-6 Je 24 '22
Truth about the 5-cent fare. J: W. Colton. Aera 11:1065-77 Ap '23
Washington fares reduced. Elec Ry J 59: 386-7 Mr 4 '22
Weekly pass as a simple zoning expedient. L. H. Doolittle. Elec Ry J 62:779 N 3 '23 Discussion. W. Jackson. 62:902 N 24 '23
Weekly pass in Youngstown. J. B. Stewart, jr. Aera 10:886-7 My '22
Weekly pass on Chicago "L". Elec Ry J 60: 309-10 Ag 26 '22
Weekly pass successful in Fort Wayne. il Elec Ry J 62:452 S 22 '23
What weekly passes do on a zone-fare railway. W. Jackson. Elec Ry J 60:39-41 Jl 8 '22
Why the unlimited pass was withdrawn in Youngstown. Elec Ry J 61:918 Je 2 '23
You ride here for $1 a week. Nation's Business 10:58-9 O '22
Zone fares and transferable short-ride weekly cards for Berlin. Elec Ry J 61:760 My 5 '23

See also Electric railroads—Fares; Street railroads—Transfers

Finance

Annual report of the Market street railway, San Francisco, to the stockholders for the year ended December 31, 1922. Comm & Fin Chr 116:1666-7 Ap 14 '23
Bill to assess property for transit improvements introduced in Pennsylvania. Elec Ry J 61:696 Ap 21 '23
Business situation and public relations. H. A. Wheeler. Elec Ry J 60:541-2 O 7 '22
Chicago surface lines has biggest year. Elec Ry J 59:692 Ap 22 '22
Cincinnati traction company not in default on improvements. Elec Ry J 62:151-2 Jl 28 '23
Circuit court of appeals rules Seattle is not compelled to use general fund for railway operation. Elec Ry J 60:954 D 16 '22
City's expert fixes Minneapolis valuation at $11,000,000. Elec Ry J 62:193 Ag 4 '23
Combating jitneys by a small railway. J. M. Ives. Elec Ry J 59:561 Ap 1 '22
Conditions in the industry. C. D. Emmons. Elec Ry J 61:10 Ja 6 '23

Street railroads—Finance—*Continued*
Credit conditions of electric railways are improving. Elec Ry J 61:26-9 Ja 6 '23
Creditable progress made in Detroit. Elec Ry J 62:114-15 Jl 21 '23
Cuban company makes good showing. Elec Ry J 62:233 Ag 11 '23
Decrease in fare opposed by President Ham of Washington railway & electric company. Elec Ry J 62:722 O 20 '23
Electric railways have a secure future; an interview with H: L. Doherty. H. V. Bozell. Elec Ry J 59:9-14 Ja 7 '22
Federal judge states situation impartially. K. Stone. il Elec Ry J 61:888 My 26 '23
Financial aspects in New Orleans report. Elec Ry J 61:1079-81 Je 30 '23
Fort William electric railway. Can Eng 44: 183-4 Ja 30 '23
German railways fail. Elec Ry J 62:423 S 15 '23
Gone—Detroit's 5-cent fare. J: W. Colton. Aera 12:466+ O '23
Huge deficits in Budapest. D. A. Willson. Aera 11:168-70 S '22
Improved financial condition established. Elec Ry J 59:37-40 Ja 7 '22
Interurban Indiana union traction earnings increase. Elec Ry J 62:273 Ag 18 '23
Lifting of the receivership and a forced reorganization of the United railways, an immediate prospect. Elec Ry J 62:577 O 6 '23
May abandon service in Davenport. Elec Ry J 62:419-20 S 15 '23
Mayor offers plan for financing Detroit street railways. il Elec Ry J 62:34 Jl 7 '23
Modern cars double net revenue. il Elec Ry J 62:327-8 S 1 '23
Monthly deficits increase on Cincinnati traction. Elec Ry J 62:465 S 22 '23
Montreal surplus increased. Elec Ry J 62: 348-9 S 1 '23
National budget system and its relation to the financing of public utilities. W. W. Warwick. Aera 11:426-32 N '22; Same cond. Elec Ry J 60:545-6 O 7 '22
Net income up 63 per cent; summary of reports of 225 companies. Elec Ry J 61:578-80 Mr 31 '23
$938,467 earned by Detroit Municipal. Elec Ry J 62:797-8 N 3 '23
Operating deficit $1,796,418 in 1921. Elec Ry J 59:767 My 6 '22
Paris tramways during the war. A. Mariage. Elec Ry J 60:201-4 Ag 5 '22
Le problème économique des transports en commun de surface dans la région Parisienne. A. Mariage. map Soc Ing Civils Bul 76:308-58, pl 41 Ja '23
Prospects for electric railway financing in 1923. C. E. Morrow. Elec Ry J 61:24-5 Ja 6 '23
Railway and city come to open disagreement in Dallas on six-cent fare and excess earnings disposition. Elec Ry J 59: 492 Mr 18 '22
Railway finances improving. Elec Ry J 60:197-8 Ag 5 '22
Railways will spend $240,000,000 in new plant and equipment. Elec Ry J 61:30 Ja 6 '23
Receiverships lowest in eight years. Elec Ry J 61:45-9 Ja 6 '23
Reorganization of the San Francisco-Oakland terminal railways. Elec Ry J 62:312 Ag 25 '23
Reorganization terms announced; Brooklyn rapid transit. Elec Ry J 61:304-5 F 17 '23
Richmond finance analyzed. Elec Ry J 60:905-6 D 9 '22
San Francisco loss $190,866. Elec Ry J 61:384-6 Mr 3 '23
Seattle Municipal gross slightly less. Elec Ry J 61:861-2 My 19 '23
Second year under service-at-cost in Rochester, successful. Elec Ry J 60:993 D 23 '22
Third avenue railway co.; annual report for year ended June 30, 1923. Comm & Fin Chr 117:1881 O 27 '23
Thompson policy reversed; Chicago is $8,189,128 richer. Elec Ry J 62:751 O 27 '23
Today's anemic dollar does the work of the old husky one. F. W. Doolittle. Aera 12: 605-12 N '23
Toledo surplus $126,106. Elec Ry J 61:537-8 Mr 24 '23
Traffic and earning figures compared. Elec Ry J 61:493-4 Mr 17 '23
Traffic and earnings increase for first four months of 1923. E. J. Murphy. il Aera 11: 1575-8 Jl '23

See also Electric railroads—Finance; Public utilities—Finance; Street railroads—Cost of operation; Street railroads—Fares; Street railroads—Securities; *also* Boston Elevated railway; Philadelphia rapid transit company

Franchises

City commission of Grand Rapids, Mich. approves grant of new franchise to Grand Rapids railway. Elec Ry J 60:23 Jl 1 '22
Des Moines franchise. Elec Ry J 58:1001-2, 1033-5 D 3-10 '21
Des Moines grant invalid. Elec Ry J 60:24 Jl 1 '22
Des Moines injunction unwarranted. Elec Ry J 59:208 F 4 '22
Favorable attitude develops in Akron. Elec Ry J 59:801 My 13 '22
Franchise negotiations in Winnipeg ended. Elec Ry J 60:860 N 25 '22
Franchise valid in Des Moines. Elec Ry J 60:986 D 23 '22
Fresno has new franchise. Elec Ry J 59: 1011-12 Je 24 '22
Houston franchise advanced. Elec Ry J 59:126 Ja 21 '22
Interest of the street car rider; paving burdens, excessive taxes, unregulated competition and other unnecessary obstacles to the giving of good service are to the detriment of the rider. C. D. Jackson. Elec Ry J 60:542-4 O 7 '22
Measuring the service in Memphis. map Elec Ry J 59:779-82 My 13 '22
Modern electric railways franchise. B: P. Alschuler. Elec Ry J 59:517-19 Mr 25 '22
Montreal contract is exacting. J. F. Saint-Cyr. Elec Ry J 59:328 F 25 '22
New franchise provisions in Vancouver. Elec Ry J 60:922 D 9 '22
One year of service at cost at Rochester. Elec Ry J 58:1128 D 24 '21
Richmond way cleared; prospects for successful negotiation of blanket franchise. Elec Ry J 62:541 S 29 '23
Saginaw franchise terms reviewed. Elec Ry J 62:70-1 Jl 14 '23
San Diego franchise refused. Elec Ry J 60:240 Ag 12 '22
San Diego railway pays one hundred dollars for privilege of building cross-town line. Elec Ry J 60:955 D 16 '22
Service-at-cost idea sound. F. Sanders. Elec Ry J 58:1154-5 D 31 '21
Service-at-cost in Rochester. C. R. Barnes. Elec Ry J 59:158-9 Ja 28 '22
Service-at-cost plan and its problems. W. E. Cann. Elec J 20:350-1 O '23
Service at cost plans. F. R. Coates. Elec J 20:100-3 Mr '23
Service-at-cost sustained in Rochester grant. Elec Ry J 60:366-7 S 9 '22
Terms of bill reviewed authorizing service-at-cost contracts in New York. Elec Ry J 59: 688 Ap 22 '22
Virginia property seeks paving relief in Portsmouth. Elec Ry J 62:419 S 15 '23
Voters of Grand Rapids approve new franchise. Elec Ry J 60:488 S 23 '22
Wisconsin's policy and the Milwaukee franchise. L: E. Gettle. Elec Ry J 62:610 O 13 '23

Freight

Freight haulage not discussed at Chicago. J. C. Bonner. Elec Ry J 60:632 O 14 '22

See also Electric railroads—Freight

Ice removal

Air-operated scarifier and ice cutter. il diag Elec Ry J 62:26 Jl 7 '23
Revolving teeth cut ice between rails. Elec Ry J 62:360 S 8 '23
Two devices for removing ice from street railway tracks. il Eng & Contr (Ry) 59: 651-2 Mr 21 '23

Street railroads—*Continued*

Insurance requirements

Report of the A.E.R.A. committee on insurance. Elec Ry J 62:627-8 O 13 '23

Law

Review of paving situation. E. J. Murphy. Aera 11:765-85 F '23

Maintenance and repair

Careful and systematic maintenance is a paying investment. J. S. Dean. Elec Ry J 61: 317-21 F 24 '23

See also Street railroads—Cost of maintenance

Management

Better service possible in Richmond. Elec Ry J 61:243-7 F 10 '23

Cutting maintenance costs; fine record of Connecticut company. L. Spraggon. Aera 11:1419-22 Je '23; Same. Eng & Contr (Ry) 59:1367-9 Je 20 '23

Definition of duties an essential to organization; power and equipment department of the Connecticut co. charts Elec Ry J 62:18-19 Jl 7 '23

Economy of new car equipment. R. S. Pilcher. Elec R (Lond) 93:370-1; Discussion. 371-2 S 7 '23

How can salesmanship be applied in the street railway business? F. H. Warren. Elec Ry J 58:985-7 D 3 '21

How money is handled by Seattle street railway. A. B. Hiatt. il Elec Ry J 60:971 D 23 '22

How to keep cars on time. H. F. Whitney; W. C. Bolt. Elec Ry J 58:1038-9 D 10 '21

Improve the service—reduce the leaks. F. R. Coates. Elec Ry J 61:7-9 Ja 6 '23

Improving operation. E: A. Roberts. Elec Ry J 59:82 Ja 14 '22

Know yesterday's results to-day. Aera 11: 615-19 Ja '23

Merchandising principles in car design and operation eliminate competition in Lexington, Ky. il map Elec Ry J 59:893-6 Je 3 '22

Merchandising transportation abroad. J. Kappeyne. il Elec Ry J 61:367-8 Mr 3 '23

Mid-Western railway executives suggest ways to stimulate summer riding. Elec Ry J 62: 178 Ag 4 '23

Moving cars by telephone. Elec Ry J 60:480 S 23 '22

No guesswork in Minneapolis; electric railway maps showing distribution of homes, etc. H. W. Ralph. Aera 11:23-5 Ag '22

Outsider's view of what sells transportation. E: Hungerford. Elec Ry J 61:1087-9 Je 30 '23

Proposed service improvements in New Orleans. Elec Ry J 61:961-4 Je 9 '23

Railways must take bold action in studying their problems. S. W. Greenland. Elec Ry J 61:166-7 Ja 27 '23

Report of the T. & T.A. committee on merchandising transportation. Elec Ry J 62: 634-8 O 13 '23

Selling the employee on salesmanship. B. R. Bigelow. Elec Ry J 58:1111-12, 1143-4 D 24-31 '21

Selling transportation in 1890. Elec Ry J 62: 57-8 Jl 14 '23

Sweeping changes recommended in New Orleans. map plan Elec Ry J 61:716-19 Ap 28 '23

Talks on management and operation. Elec Ry J 61:415-16 Mr 10 '23

Transportation developments in Atlanta. il diag Elec Ry J 59:741-7 My 6 '22

Two southern cities to have entirely new rolling stock; Huntington, W.Va. and Lexington, Ky. il Elec Ry J 62:179-81 Ag 4 '23

Use and neglect of statistics. J. A. Emery. il Elec Ry J 60:880 D 2 '22

Why Thomas E. Mitten succeeds in Philadelphia. E. A. Muschamp. Ptr Ink 118:41-2+ Mr 30 '22

See also Street railroads—Employees; Street railroads—Public relations; Street railroads—Stores systems

Motor bus auxiliaries

See Motor bus lines—Street railroad auxiliaries

Motor bus competition

Bars ruinous competition; Illinois Supreme court upholds judgment against bus line. Aera 12:30-7 Ag '23; Excerpt. Bus Transportation 2:358-9 Jl '23

Battle of the bus and the street car. F. H. Warren. Bus Transportation 1:85-8 F '22

Co-ordinated operation of street cars and buses urged. G: H. Davis. Elec Ry J 61: 1035-6 Je 23 '23

Coordination of the motorbus and the street railway. C. D. Emmons. Soc Auto Eng J 12:433-6+ My '23; Same. Aera 11:1237-44 My '23; Same abr. Eng & Contr (Ry) 59: 1105-9 My 16 '23; Abstract. Bus Transportation 2:238-9 My '23; Discussion. Soc Auto Eng J 12:495-6 My '23; Bus Transportation 2:288-9 Je '23

Electric railways begin to favor bus transportation. C. Jennings. Automotive Ind 47:724-5 O 12 '22

Pennsylvanians discuss competition. Elec Ry J 59:943-5 Je 10 '22

Place of the motor bus. J. W. Welsh. Elec Ry J 62:299-300 Ag 25 '23

Public utilities commission of Maine forbids destructive competition. Aera 12:359-63 O '23

See also Jitney buses

Municipal ownership

Chicago's mayor for municipal ownership. Elec Ry J 62:30 Jl 7 '23

Favors purchase plan. Elec Ry J 59:687 Ap 22 '22

Stockholders of the D. U. R. unanimously vote for sale of property to city. Elec Ry J 59:488 Mr 18 '22

Success in Detroit would not establish success of municipal ownership generally. Elec Ry J 59:892 Je 3 '22

See also Street railroads, Municipal

Passes

See Street railroads—Fares

Pavements

See Street railroads—Track pavement

Public relations

Better public relations. W. H. Sawyer. Elec Ry J 61:9-10 Ja 6 '23

Building in the public mind the true conception of the railway. E. F. Wickwire. Elec Ry J 62:138-41 Jl 28 '23; Same. Aera 12: 76-83 Ag '23

Business situation and public relations. H. A. Wheeler. Elec Ry J 60:541-2 O 7 '22

Customer is always right. F. H. Warren. Elec Ry J 60:775-7 N 11 '22

From abuse to popularity in three years in Muskegon, Mich. Elec Ry J 60:780 N 11 '22

From an editor's viewpoint. A. Krock. Aera 11:760-2 F '23

Future of the electric railway business. W. H. Sawyer. Elec Ry J 61:518-19 Mr 24 '23

Good will is born of service. J. Lightbody. Aera 10:996-1001 Je '22

Hospitality month at Elmira. Elec Ry J 59: 792-3 My 13 '22

Improving public relations and keeping them improved; a symposium. Elec Ry J 60:547-53 O 7 '22

Internal public relations. J. P. Barnes. Elec Ry J 60:981-2 D 23 '22

Making friends of the children. il Elec Ry J 60:629-30 O 14 '22

Merchandising transportation. R: Meriwether. Elec Ry J 61:932 Je 2 '23

Organizing a public relations department. A. V. Bland. Elec Ry J 62:454-5 S 22 '23

Personal touch in public relations. Elec Ry J 61:606 Ap 7 '23

Progress made since report of Federal commission. C: E. Elmquist. Aera 12:586-92 N '23; Excerpts. Elec Ry J 62:611-13 O 13 '23

Street railroads—Public relations—*Continued*
Public be pleased! W. H. Sawyer. Aera 11: 1126-32 Ap '23
Public you serve is your judge. E. M. Sullivan. Elec Ry J 59:567-8 Ap 1 '22
Smoothing over the little things. F. H. Williams. Elec Ry J 60:12-13 Jl 1 '22
Street railway and community. D: N. Casey. Aera 10:1108-10 Jl '22
Suggestions on merchandising transportation. E: Hungerford. Elec Ry J 60:538-40 O 7 '22; Same cond. Bus Transportation 1:548-9 O '22
Telling 'em straight in Duluth. R. B. Thompson. Aera 10:941-6 Je '22
Trot out the cookie jar. L. St Clair. Elec Ry J 59:204-5 F 4 '22
Utilizing employes for selling. M. McCants. Aera 12:15-20 Ag '23
Visualizing the service; exhibit of United railways and electric company at Baltimore better homes exposition. D. Burroughs. il Aera 11:1423-6 Je '23
We all work for good will. Aera 10:603-5 F '22
What public relations means. B. I. Budd. Aera 11:391-5 N '22

See also Jitney buses

Rates

See Street railroads—Fares

Records

Checking headway records in Racine. diags Elec Ry J 61:1078 Je 30 '23
Checking schedules in Baltimore and elsewhere. C. P. Nachod. Elec Ry J 59:901 Je 3 '22
Convenient forms simplify the making of cost records. A. J. Stratton. Elec Ry J 59:630-1 Ap 15 '22
Fitting service to traffic in Brooklyn. A. L. Hodges. Elec Ry J 60:1001-6 D 30 '22
Maintenance records used as a bogey. Elec Ry J 60:262-4 Ag 19 '22
Rapid checking of headway recorder records. Elec Ry J 60:974 D 23 '22
Revamping the filing and record system of an engineering department. R. B. Genest. il Elec Ry J 61:797-801 My 12 '23

Regulation

Public regulation in Massachusetts. H: C. Attwill. Elec Ry J 62:606-7 O 13 '23
Railways emerging from serious conditions. T: N. McCarter. Elec Ry J 61:284-6 F 17 '23
Regulation from the viewpoint of a commissioner. D. N. Lewis. Elec Ry J 61:273-4 F 17 '23
Some practical results of commission regulation. Elec Ry J 62:605-13 O 13 '23
Utility regulation in Ohio. C: C. Marshall. Elec Ry J 62:609-10 O 13 '23

Reports

Making daily service reports accurate. Elec Ry J 62:13-14 Jl 7 '23

Rolling stock

Nearly 200 per cent increase in rolling stock ordered during 1922. Elec Ry J 61:35-42 Ja 6 '23
Some notes on rolling stock. il Elec Ry J 61:13-15 Ja 6 '23

See also Street cars

Routing

Belt lines abandoned and through routes established; second section of Beeler report. maps Elec Ry J 61:885-7 My 26 '23
Canal street rearrangement, New Orleans. plans Elec Ry J 61:925-7 Je 2 '23
Chicago loop rerouting proposed. maps Elec Ry J 58:938-9 N 26 '21
Rerouting approved in Kansas City, Kansas. Elec Ry J 59:173 Ja 28 '22
Rerouting in Manhattan. D. L. Turner. maps Elec Ry J 58:1109-11 D 24 '21
Rerouting of San Diego lines improves service. Elec Ry J 61:985 Je 9 '23
Rerouting would save money in Richmond. plans Elec Ry J 61:397-402 Mr 10 '23

Safety devices and measures

Accident reduction in Los Angeles; men thoroughly drilled to be careful. J: C. Collins. Elec Ry J 60:131-4 Jl 22 '22
Active safety measure campaign under way in Los Angeles. Elec Ry J 62:574 O 6 '23
Award system as a means of preventing accidents. G: B. Anderson. Elec Ry J 62: 566-8 O 6 '23
Benefits of safety campaigns. H. G. Winsor. Elec Ry J 60:170-1 Jl 29 '22
Conducting safety work on a business basis. il Elec Ry J 60:127-8 Jl 22 '22
Continuous safety contest saves. W. F. Ham. Aera 12:648-51 N '23
Delegates in electric railway section of National safety council consider safety measures. Elec Ry J 62:565-6, 708-9 O 6, 20 '23
Does a small company need a safety supervisor? experiences of Cape Breton electric company. C. C. Curtis. Elec Ry J 59:859-61 My 27 '22
Emergency stops. H. C. De Camp. Elec Ry J 61:172-3 Ja 27 '23
Good results from safety campaign in Nashville. W. A. Brown. Elec Ry J 60:157-8 Jl 29 '22
How Safety Sam reduced accidents. Elec Ry J 62:450-1 S 22 '23
How safety week was conducted in Baltimore. L. H. Palmer. il Elec Ry J 60:109-12 Jl 22 '22
How to prepare for a no-accident week. F. M. Rosseland. Elec Ry J 60:125-6 Jl 22 '22
Joint committee on accident prevention. Elec Ry J 62:641-3 O 13 '23
Kiddies' play-as-you-enter safety car. il Elec Ry J 60:120 Jl 22 '22
Organized safety a positive force in reducing accidents. A. W. Koehler. il Elec Ry J 60: 123-5 Jl 22 '22
Organized safety work pays. F. H. Hill. Elec Ry J 60:121 Jl 22 '22
Prevent accidents rather than pay claims. H. L. Brown. Elec Ry J 60:113-16 Jl 22 '22
Putting safety first over the top in Green Bay. C. E. Warwick. Elec Ry J 60:301-2 Ag 26 '22
Removable posts for safety zone. il Elec Ry J 62:444 S 22 '23
Report on safety work. Elec Ry J 60:586-7 O 7 '22
Safety—and the safety engineer on a transportation utility. W. H. Boyce. il Elec Ry J 60:117-20 Jl 22 '22
Safety as an operating factor. F. R. Coates. Elec Ry J 60:328-9 S 2 '22
Safety committee reduces accidents. Elec Ry J 59:559 Ap 1 '22
Safety first car (white mule), in East St Louis makes debut amid great publicity. il Elec Ry J 59:80-1 Ja 14 '22
Safety measures cut accidents. J. C. Costello. Elec Ry J 60:972-3 D 23 '22
Safety pays men real money. Elec Ry J 62: 7-9 Jl 7 '23
Safety principles as applied to the individual utility. D. E. Parsons. Elec Ry J 62:568 O 6 '23
San Diego's accident bonus. W. H. Moore. Elec Ry J 60:137 Jl 22 '22
Track grinder warning and other accident prevention work in San Francisco. il Elec Ry J 60:392 S 16 '22
Work of a safety engineer. Elec Ry J 60:135 Jl 22 '22

Schedules

Fitting service to traffic in Brooklyn. A. L. Hodges. Elec Ry J 60:1001-6 D 30 '22
How to keep cars on time. H. F. Whitney; W. C. Bolt. Elec Ry J 58:1038-9 D 10 '21
N.Y. Transit commission standardizes timetable. Elec Ry J 60:906-7 D 9 '22
Regulate service according to traffic. N. C. Rasmussen. Elec Ry J 60:327-8 S 2 '22
Visualizing schedules. il Elec Ry J 61:553-4 Mr 31 '23

Securities

Bond in every home—the woman's viewpoint. A. Funk. Elec Ry J 59:369-71 Mr 4 '22

Street railroads—Securities—*Continued*
Credit conditions of electric railways are improving. Elec Ry J 61:26-9 Ja 6 '23
$825,000 of preferred stock of the Northern Ohio traction & light company sold. E. B. Atchley. Elec Ry J 59:597-8 Ap 8 '22
Hello, Jones, c'mon over here! W. P. Strandborg. Elec Ry J 60:165-8 Jl 29 '22

See also Electric railroads—Securities

Service

Hauling Ford workers. map Elec Ry J 62:399-402 S 15 '23
How attractive is your service? Aera 11:13-17 Ag '22
Service, Halifax men's slogan. Aera 10:1001-5 Je '22
Service to the public. C. E. Morgan. Elec J 20:353-5 O '23
Some factors in service. C. H. Allen. Elec Ry J 62:298-9 Ag 25 '23

Shops

See Electric railroads—Shops

Signals

See Electric railroads—Signals; Street railroads—Track marks

Snow protection and removal

Crane cars solve snow-removal problem. il diags Elec Ry J 59:825-7 My 20 '22
Drifts a mile long in Manitoba, [and other articles on snow fighting]. H. C. Howard and others. il Aera 11:1265-80 My '23; Excerpts. Eng & Contr (Ry) 59:1097-1100 My 16 '23
Fixed snow sweeper routes are desirable. il plan Elec Ry J 62:357-9 S 8 '23
How the Holyoke street railway organizes for snow fighting. Elec Ry J 61:331 F 24 '23
Keeping track of snow-removal costs. R. B. Genest. Elec Ry J 62:361-2 S 8 '23
Preparing for snow in Boston. il Elec Ry J 60:911-13 D 9 '22
Rotary snow and ice digger. il Elec Ry J 58:1077 D 17 '21
Special snow-fighting equipment. il Elec Ry J 58:857-8 N 12 '21
Trolley snow sweepers. R. C. Kroger. il Sci Am 126:55 Ja '22

Special work

See Street railroads—Switches, frogs, etc.; Street railroads—Track

Statistics

Statistics showing extent of the industry. Elec Ry J 61:50-1 Ja 6 '23
Traffic and earnings increase. Elec Ry J 62:73 Jl 14 '23

Stores systems

Centralized store department. Elec Ry J 61:1085 Je 30 '23
Handling stores in Baltimore. W. H. Staub. il Aera 12:203-6 S '23
Hurrying materials. C. A. Harris. Aera 11:1299-1301 My '23
Stores accounting. Elec Ry J 62:703-4 O 20 '23

Switches, frogs, etc.

Constructing acute angle frogs by welding. il Elec Ry J 58:910 N 19 '21
Increasing reliability of track switch operation. il diags Elec Ry J 60:71-3 Jl 15 '22
Maintenance of special work. R. A. D'Arcy. il Eng & Contr 58:167-8 Ag 16 '22; Same. Aera 11:59-64 Ag '22
Method of repairing broken switch without interrupting operation. diags Eng & Contr (Ry) 58:5 O 18 '22
Positive switch combined with signal provides desired protection. il Elec Ry J 59:644-5 Ap 15 '22
Slanting bed switch. il Elec Ry J 62:570 O 6 '23
Switch easements and frog standardization. S. Striezheff. diag Elec Ry J 60:85-6 Jl 15 '22

Taxation

A. E. R. A. committee report on special taxes. Elec Ry J 62:622-5 O 13 '23
How should railways be taxed? A. T. Davison. Elec Ry J 61:280-1 F 17 '23
Make your tax talk heard. F. Sanders. Aera 10:683-90 Mr '22; Excerpts. Elec Ry J 59:365-7 Mr 4 '22
Paving tax burden should be eliminated. A. T. Davison. Elec Ry J 60:823-4 N 18 '22
Railways loaded with taxes. Aera 12:334-41 O '23
Taxation argument up in Seattle. Elec Ry J 60:525 S 30 '22
There should be relief from the paving tax. A. T. Davison. Elec Ry J 60:19-20 Jl 1 '22

Telephone

L. C. C. tramway traffic control; direct regulation by telephone from headquarters. il Elec R (Lond) 93:169-70 Ag 3 '23
Wired wireless for trolleys. L. T. Wilson. il Aera 11:1231-6 My '23

Terminals

Cincinnati double-deck terminal for electric lines. il diags plans Eng N 89:218-23 Ag 10 '22
Dixie terminal opened in Cincinnati, Ohio. il Elec Ry J 58:865 N 12 '21
Expediting traffic at Charlotte bathing beach, Rochester, N. Y. il diag plan Elec Ry J 60:771-3 N 11 '22

Tickets and tokens

Artistic fare tokens command premium. K. Sieber. il Elec Ry J 59:402-3 Mr 11 '22
Metal tokens in common use. il Aera 11:937-45 Mr '23
Printing interurban tickets as used. T. B. MacRae. il Elec Ry J 60:773-4 N 11 '22
Riding on a pass; studies of American and European forms of blanket transportation. W. Jackson. Elec Ry J 60:519-24 S 30 '22

Track

Adjusting track construction to the lightweight car. R. G. Taber. diags Elec Ry J 59:755-6 My 6 '22; Same. Eng & Contr 57:583 Je 21 '22
Analysis of special trackwork loads. M. Bernard. diag Elec Ry J 62:173-4 Ag 4 '23
Barbey rail has reduced noise. diag Elec Ry J 61:1038 Je 23 '23
C. E. R. A. report of track and roadway committee. Elec Ry J 62:146 Jl 28 '23
Chrome-nickel steel in special work; abstracts. F. G. Hibbard. il diags Elec Ry J 61:461-7 Mr 17 '23; Iron Age 111:753-7 Mr 15 '23; Discussion. Elec Ry J 61:608 Ap 7 '23
Cicero, Illinois, has peculiar problem. il Elec Ry J 62:111 Jl 21 '23
Combination road and drainage ditch crossing. C. A. Elliott. il diag Elec Ry J 62:373 S 8 '23
Combined electric welder and grinder. il Elec Ry J 61:1005-6 Je 16 '23; Excerpt. Eng & Contr (Ry) 60:118-19 Jl 18 '23
Concreting plant for street elevation. il Concrete 23:82-3 Ag '23
Construction of street railway tracks in paved street. R. C. Cram. Eng & Contr (Ry) 60:804-5 O 17 '23
Controlling excavations through right-of-way. R. B. Genest. il diags Elec Ry J 59:703-7 Ap 29 '22
Design and construction of streets for street railway traffic. il Elec Ry J 60:788-9 N 11 '22
Design of street railway includes tie bars as concrete reinforcing. J. Montgomery. diag Eng N 88:607 Ap 13 '22
Design of street railway tracks; abstracts. W. W. Wysor. Elec Ry J 60:748-9 N 4 '22; Eng & Contr (Ry) 58:130-2 D 20 '22; Can Eng 44:215 F 6 '23; Discussion. Elec Ry J 60:749-50 N 4 '22
Design of track in paved streets. H. H. George. Aera 12:38-44 Ag '23; Same. Eng & Contr (Ry) 60:614-19 S 19 '23; Same. Munic Eng 65:181-6 O '23; Same cond. Elec Ry J 60:747-8; Discussion. 749-50 N 4 '22
Drainage of open track. R. P. Waller. il Aera 11:64-8 Ag '22; Same abr. Eng & Contr 58:156-7 Ag 16 '22

Street railroads—Track—*Continued*
Effect on special trackwork of reversing direction of car movement in Vancouver. Elec Ry J 60:814-15 N 18 '22
Electric welding car in St John, N.B. C. L. Baxter. il Elec Ry J 62:85-7 Jl 21 '23
Emergency special trackwork made in short time. L. R. Brown. il Elec Ry J 60:940 D 16 '22
European and American trackwork practice compared. F: Bland. Elec Ry J 61:89-90 Ja 13 '23
Excavating track in chunks with a derrick. R. C. Cram. il diags Elec Ry J 60:735-8 N 4 '22
Expediting track construction in Toronto. il diags map plan Elec Ry J 59:551-8 Ap 1 '22
Experience with Chicago track. C: S. Holcomb. il diag Elec Ry J 60:445-52 S 23 '22
Features of 1922 trackwork in Rochester. il diag Elec Ry J 61:117-18 Ja 20 '23
French tramway track construction. diags Elec Ry J 60:403-4 S 16 '22
Importance of track work. W. F. Allshouse. Aera 11:813-16 F '23
Insuring accuracy in trackwork estimates. C. A. Elliott. Elec Ry J 59:269-71 F 18 '22
Keeping tracks in O. K. condition. R. M. Hyde and others. il Aera 11:159-68 S '22
Labor-saving machinery shows economies. charts Elec Ry J 61:126 Ja 20 '23; Same. Eng & Contr (Ry) 59:441 F 21 '23
Live topics on way matters discussed. Elec Ry J 59:245 F 11 '22
Location of street railway track in streets. R. C. Cram. Eng & Contr (Ry) 59:433-5 F 21 '23; Abstract. Elec Ry J 60:747; Discussion. 749-50 N 4 '22
Maintaining continually sinking track. il map Elec Ry J 60:967-9 D 23 '22
Maintenance of special work. R. A. D'Arcy. il Eng & Contr 58:167-8 Ag 16 '22; Same. Aera 11:59-64 Ag '22
Manganese centers; welding of special work in Syracuse. H. E. Bean. il Elec Ry J 59: 830-1 My 20 '22; Same. Eng & Contr 58:65 Jl 19 '22
Method and cost of reclaiming Seattle paved track. A. E. Pierce. il Elec Ry J 61:329-31 F 24 '23
Method of valuation of railway special trackwork. J. E. Rapuano. Elec Ry J 59:264-8 F 18 '22
Methods and cost of relaying double track at Rochester, N.Y. diag Eng & Contr 58:67-8 Jl 19 '22
New paving block for track joints. il Can Eng 43:563 N 21 '22
New type of track drain. L. R. Brown. il diags Elec Ry J 60:353 S 9 '22; Same. Eng & Contr (Ry) 58:17 O 18 '22
Practical example in track replacement. S: Striezheff. diag Elec Ry J 59:829-30 My 20 '22
Reclaiming track in paved streets. L. A. Mitchell. Elec Ry J 59:201-2 F 4 '22
Rehabilitation of street railway tracks. F. B. Walker. il Boston Soc C E J 9:143-51 S '22; Same. Eng & Contr (Ry) 58:20-2 O 18 '22; Abstract. Elec Ry J 60:640-1 O 14 '22; Discussion. Boston Soc C E J 9:151-4 S '22
Removing rails and restoring paving at Everett. Eng N 91:525 S 27 '23
Report of the committee on way matters. Elec Ry J 60:600-2 O 7 '22
Special chart for recording track reconstruction progress. Eng & Contr 58:71 Jl 19 '22
Special concrete headers for street railway track. diag Eng & Contr 58:64 Jl 19 '22
Special joint supports prove highly satisfactory. M. Ackerman. il Elec Ry J 59:203-4 F 4 '22
Specialized repair forces produce better track maintenance. il Elec Ry J 59:453-5 Mr 18 '22
Steel tie track in Youngstown has stood hard wear. il Elec Ry J 61:850 My 19 '23
Street car's carpet. il Elec Ry J 60:979 D 23 '22
Taking the arc welder and rail grinder to the job. il Elec Ry J 60:388 S 16 '22
To what extent is paving affected by street railway tracks? J. Adler. Elec Ry J 60:790 N 11 '22; Same. Eng & Contr (Ry) 58:132-3 D 20 '22
Track and paving. Elec Ry J 61:11-13 Ja 6 '23
Track and wiring on large bridge across the Housatonic river. il diags plan Elec Ry J 59:587-91 Ap 8 '22
Track building with steel ties. C. L. Hedges. Elec Ry J 62:376 S 8 '23
Track built on concrete base in Kansas City. A. E. Harvey. il diags Elec Ry J 60:625-7 O 14 '22
Track construction in city streets. H. C. Packard. il Eng & Contr (Ry) 58:9-10 O 18 '22
Track costs reduced to units of work. Elec Ry J 61:1007-8 Je 16 '23
Track machinery in Boston. il Elec Ry J 61: 458-60 Mr 17 '23
Track notes from Detroit. diag Elec Ry J 61:1049 Je 23 '23
Track reclamation costs from Fort Wayne. H. V. Norford. Elec Ry J 59:202 F 4 '22
Track reconstruction in San Diego. il Elec Ry J 61:719-20 Ap 28 '23
Track relaying accelerated by installing prewelded rails. C. S. Kimball. il Elec Ry J 60: 386-8 S 16 '22
Unusual method of raising track. R. C. Cram. il diags Elec Ry J 58:895-6 N 19 '21
Urban electric railway tracks. E. J. McIlrath. Eng & Contr 58:279-81 S 20 '22; Same. Can Eng 43:496-8 O 31 '22; Same cond. Elec Ry J 60:169-70 Jl 29 '22
Way construction experience in Portland. F. I. Fuller. il diags Elec Ry J 61:639-40 Ap 14 '23
Wear on rail head may determine life of track. C: H. Clark. diag Elec Ry J 62:47-9 Jl 14 '23; Discussion. 62:220-2, 374 Ag 11, S 8 '23
Welding manganese special work. Aera 12: 244-53 S '23

See also Electric railroads—Track; Pavements—Cutting; Rails; Street railroads—Curves and turnouts; Street railroads—Ice removal; Street railroads—Switches, frogs, etc.; Track gages

Track marks

Track marks help operation. C. S. Kimball. Aera 11:147-9 S '22

Track pavement

Asphaltic concrete base makes possible rapid paving program. C. A. Elliott. il Elec Ry J 61:843-5 My 19 '23
Car track paving at street intersections. Concrete 21:25 Jl '22
Car track zone paved with precast concrete slabs. il Eng & Contr (Ry) 58:80-1 N 15 '22
Extreme heaving of pavement adjacent to track construction. il diags Elec Ry J 61: 677-8 Ap 21 '23; Discussion. 61:769, 889 My 5, 26 '23
Getting rid of paving. N. C. Rasmussen. Elec Ry J 60:160 Jl 29 '22
Header curb along street-car track protects pavement. H. H. Edwards. il Pop Mech 38: 253-4 Ag '22
Making a noiseless granite block paving. il Elec Ry J 61:481 Mr 17 '23
Pavement design for street railway traffic. C. M. Pinckney. Eng & Contr (Ry) 59:1360 Je 20 '23
Paving case of Pottstown, Pa., decided. Elec Ry J 61:655 Ap 14 '23
Paving tax burden should be eliminated. A. T. Davison. Elec Ry J 60:823-4 N 18 '22
Paying for construction and maintenance of car track paving. Munic Eng 65:3-6 Jl '23
Railway does better paving than city. il diag Elec Ry J 62:326-7 S 1 '23
Review of paving situation. E. J. Murphy. Aera 11:765-85 F '23
Street paving with regard to electric railway tracks. Elec Ry J 60:822-3 N 18 '22
There should be relief from the paving tax. A. T. Davison. Elec Ry J 60:19-20 Jl 1 '22

Track sweepers

Chainless sweeper has many advantages. il diag Elec Ry J 61:1077-8 Je 30 '23

Street railroads—*Continued*

Traffic

Conductors make traffic counts in Milwaukee. Elec Ry J 61:955-6 Je 9 '23
Detroit traffic graph made directly on street. il Elec Ry J 61:638 Ap 14 '23
Electric railway passenger traffic increasing. Aera 12:652-4 N '23
Statistics of New York traffic. Elec Ry J 58: 941-4 N 26 '21
Traffic survey for urban railways. A. Jackson. charts Elec Ry J 62:22-4 Jl 7 '23
Up-to-date passenger traffic checking methods in New Jersey produce good office records. Bus Transportation 1:531-3 O '22

Trains

Cars for use in train operation. il diags Elec Ry J 62:529-36 S 29 '23
Determination of train make-up on Long Island. G. C. Bishop. il diags Elec Ry J 59: 110-13 Ja 21 '22
Multiple-unit operation. W. J. Clardy. il Elec J 20:366-9 O '23
Pittsburgh's new light six train. il diags Elec Ry J 61:919-22 Je 2 '23
Two-car train with six motors in service in Pittsburgh. G. C. Hecker. Aera 11:1151-2 Ap '23; Same. Eng & Contr (Ry) 59:916-17 Ap 18 '23

See also Street cars—Trailers

Transfers

Boston tries new transfer. Elec Ry J 60:288 Ag 26 '22
New transfer system for New Orleans. chart Elec Ry J 61:1043-4 Je 23 '23
Transfer abuse reduced in Boston. J. H. Moran. Elec Ry J 62:9-10 Jl 7 '23
Transfers show point of origin. T. G. Brabston. Elec Ry J 59:153 Ja 28 '22

Valuation

Award made in Toronto street railway valuation. P. W. Greene. Eng N 90:292-3 F 15 '23
City and company $6,000,000 apart; report of city engineer at Norfolk, Va. Elec Ry J 61: 902-3 My 26 '23
Duluth street railway valued. Elec Ry J 61: 552-3 Mr 31 '23
Feustel Philadelphia valuation presents valuable analytical and cost data. Elec Ry J 59:929-33 Je 10 '22
Method of valuation of railway special trackwork. J. E. Rapuano. Elec Ry J 59:264-8 F 18 '22
Minnesota commission concludes hearings in Duluth railway case. Elec Ry J 59:495 Mr 18 '22
$9,000,000 valuation upheld. Elec Ry J 61:782-3 My 5 '23
Railway files brief in New Jersey rate case. Elec Ry J 61:63-4 Ja 6 '23
Reasonable value defined. Elec Ry J 58:995 D 3 '21
Report of A.E.R.A. committee on valuation. Elec Ry J 62:780-7 N 3 '23; Same cond. Aera 12:343-50 O '23; Discussion. L. R. Nash. Elec Ry J 62:907-9 N 24 '23
Review of Brooklyn transit commission valuation. Elec Ry J 60:875-7 D 2 '22
Richmond valuation report published. Elec Ry J 61:161-2 Ja 27 '23
Toronto system worth nearly $12,000,000. Elec Ry J 61:247-9 F 10 '23
Valuation and renewal fund considered. Elec Ry J 58:989-90 D 3 '21
Valuation of street railway assets, their maintenance and depreciation. L. A. Herdt and E. G. Burr. Elec Ry J 59:934-5 Je 10 '22
Valuations all protested in New York. Elec Ry J 59:538 Mr 25 '22
Various valuation points considered by the Public service commission of Pennsylvania. Elec Ry J 62:16-18 Jl 7 '23

Wages

Arbitration in Cleveland. Elec Ry J 61:735 Ap 28 '23
Increase of five cents on the Cleveland railway. Elec Ry J 61:898 My 26 '23
Increase of 3½ cents an hour awarded to men on British Columbia electric railway. Elec Ry J 62:572 O 6 '23
Railway states wage facts. Elec Ry J 62:31 Jl 7 '23
Scranton wages advanced. Elec Ry J 62:32 Jl 7 '23
Six per cent increase to Eastern Massachusetts men. Elec Ry J 62:228-9 Ag 11 '23
Trend of prices, wages and fares; variations during last ten years in wholesale prices and general construction costs and in electric railway material costs, wages and fares. chart Elec Ry J 59:995-6 Je 24 '22
Wage rise in Chicago. Elec Ry J 62:151 Jl 28 '23
Wages adjusted on Indiana, Columbus & Eastern traction. Elec Ry J 62:305 Ag 25 '23
Wages advanced in Louisville. Elec Ry J 60:1020 D 30 '22
Wages advanced on New York & Queens county railway. Elec Ry J 62:29 Jl 7 '23

Australia

Graphs from Australia. Elec Ry J 62:451 S 22 '23
Railway publicity in Australia. T: Crouch. Elec Ry J 60:977 D 23 '22
Tramways in the antipodes. T. Neilson. Aera 11:541-3 D '22

Brazil

Traffic increases on Brazilian tramways. Elec Ry J 60:339 S 2 '22

British Columbia

Changing from left to right hand operation. W. G. Murrin. il Elec Ry J 58:894-5; 59:871 N 19 '21, My 27 '22

California

California body ruled to be right in fixing different basis for local and interurban fares. Elec Ry J 62:467 S 22 '23
California situation regarding rail and trackless transportation. P. Shoup. Elec Ry J 50:360-2 Mr 4 '22
Conditions in California. P. Shoup. Aera 12: 332-3 O '23
Difficulties confronting electric railway in California. W. V. Hill. Elec Ry J 59:604-5 Ap 8 '22
I.C.C. act interpretation; electric railways oppose steam railroad purchase proposal from California at Washington hearing. Elec Ry J 60:991 D 23 '22

See also Western Pacific railroad

China

Chinese cities to have electric railways. Elec Ry J 60:9 Jl 1 '22

Connecticut

Discrimination charged; New Haven association demands that Connecticut company reduce fares. Elec Ry J 60:618 O 7 '22
Shore line revived between New Haven and Guilford. Elec Ry J 62:108 Jl 21 '23

Europe

Tramways in Europe. A. L. Donnelly. diags plan Aera 11:735-46 F '23
Use of one-man cars in Europe spreading. P. M. Nieuwenhuis. diags Elec Ry J 60:881-2 D 2 '22

Finland

American street cars in Finland. J. A. H. Torry. il Gen Elec R 25:458-9 Jl '22

France

Tramway conditions in France. M. Guiffart. Elec Ry J 59:757-8 My 6 '22

Germany

Crisis of the German transporting business. L. Lion. Elec Ry J 60:849 N 25 '22
Frankfort fare 31 times 1918 rate. F. T. F. Dumont. Aera 11:454-6 N '22

Street railroads—*Continued*

Great Britain

British electric railway prospects. Elec Ry J 59:25-8 Ja 7 '22

Fares, wages and prices all being readjusted —£648,000 for Edinburgh electrification. Elec Ry J 59:207 F 4 '22

Tramways: and some of to-day's problems. A. W. A. Chivers. il Elec R (Lond) 93:33-4; Discussion. 34 Jl 6 '23

Tyneside tramway development; linking-up of Newcastle and Gateshead. map Elec R (Lond) 92:74-5 Ja 12 '23

Japan

Everybody rides in Japan. I. F. Baker. il Aera 12:9-13 Ag '23

Massachusetts

Public regulation in Massachusetts. H: C. Attwill. Elec Ry J 62:606-7 O 13 '23

New Jersey

Communities urge continuance of Jersey Central traction line. Elec Ry J 62:33 Jl 7 '23

See also Public service railway of New Jersey

Ohio

Court issues temporary injunction in which jurisdiction of I.C.C. over electric lines is denied. Elec Ry J 59:580 Ap 1 '22

Utility regulation in Ohio. C: C. Marshall. Elec Ry J 62:609-10 O 13 '23

Ontario

Canadian border municipalities vote against ambitious electric railway project. Elec Ry J 61:139 Ja 20 '23

Russia

First Russian tramway conference. Elec Ry J 62:543 S 29 '23

Southern states

Notes from southern cities. diags Elec Ry J 59:709-11 Ap 29 '22

Switzerland

Economic situation of the Swiss railways from 1913 to 1920. Elec Ry J 62:219 Ag 11 '23

Tennessee

Observations in three Tennessee cities. Elec Ry J 62:371-2 S 8 '23

United States

Bright prospects for electric railway industry. C. D. Emmons. Aera 12:305-12 O '23; Same abr. Elec Ry J 62:587-9 O 13 '23

Electric railways have a secure future; an interview with H: L. Doherty. H. V. Bozell. Elec Ry J 59:9-14 Ja 7 '22

Electric railways have come back. J. W. Welsh. Elec Ry J 62:789-90 N 3 '23

Expresses confidence in future of traction. A. C. Blinn. Elec Ry J 59:192-3 F 4 '22

Outlook for the street railways. F. G. Buffe. Eng & Contr (Ry) 60:587-9 S 19 '23; Same abr. Aera 12:5-8 Ag '23

Over the road with Father Time. G. J. MacMurray. Elec Ry J 61:31-4 Ja 6 '23

Railways' financial cycle has come; optimism over the electric railway outlook. R. I. Todd. Elec Ry J 58:1018-23 D 10 '21

Transportation situation. J. W. Welsh. Aera 12:184-7 S '23

Why optimism is justified at this time. R. I. Todd. Elec Ry J 60:537-8 O 7 '22

Virginia

Observations on the railway situation in three Virginia cities; Hampton, Newport News and Roanoke. il Elec Ry J 62:133-5 Jl 28 '23

Present conditions in Norfolk, Richmond and Petersburg. Elec Ry J 62:59-60 Jl 14 '23

Street railroads, Municipal

All Detroit lines now municipally owned. Elec Ry J 59:838-41 My 20 '22

Annual report shows gain in Seattle. Elec Ry J 59:613 Ap 8 '22

Another M. O. experiment in Ashtabula, Ohio. Elec Ry J 59:761 My 6 '22

Bulletins on the Detroit municipal railway; abstracts and discussion. W. Jackson. Elec Ry J 61:371-2, 508-12, 564, 647-9 Mr 3, 24-31, Ap 14 '23

Detroit's street railways. J: W. Colton. il Aera 11:1561-74 Jl '23

Doubled income; still shows loss; Seattle's experiment in municipal ownership of street railway system. Gas Age 49:233-4 F 25 '22

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Device for testing gage in switches and on curves. J. S. Wilder. il diags Elec Ry J 61: 653-4 Ap 14 '23; Same abr. Eng & Contr (Ry) 59:1382 Je 20 '23

Track marks. See Street railroads—Track marks

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Track stresses. See Rails—Stresses

Track sweepers. See Railroads—Track sweepers; Street railroads—Track sweepers

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Evolution and value of the appraisal. A. B. Gimlin. Inland Ptr 68:493-4 Ja '22
Inventory valuation. W: A. Paton. Administration 3:291-302 Mr '22
Marking manufactured products as an aid in appraisal work. W. M. Lowry. Munic Eng 63:161-2 N '22
Of what good is an appraisal? H. B. Hall. Brick & Clay Rec 59:968-71 D 27 '21
Treasury regulations relating to inventories. F. Lowson. Administration 3:330-4 Mr '22
Valuation in the retrospective. J: S. Worley. W Soc E J 28:438-42 O '23
Valuation of inventories. W. A. Paton. J Account 34:432-50 D '22
Value of an industrial appraisal to the management. J. S. Brown. Management Eng 2: 76-8 F '22
What is investment? C: W. McKay. Ind Management 63:282-6 My '22
What is the value of trade lists as an asset? Ptr Ink 121:25-6 O 5 '22

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Terminology
Definition of important valuation terms. Brick & Clay Rec 60:43 Ja 10 '22

Valuation of imports. See Tariff—United States

Value
Theory of marginal value. L. V. Birck. 351p Routledge; Dutton '22

See also Index numbers (economics); Money; Prices

Valve gear
Correct adjustment of unaflow engine valve gear. il diags Power 56:942-3 D 12 '22
Engines at Baltimore refinery have unusual valve gear. il diags Power 56:498-9 S 26 '22
Methods of repairing Walschaert valve gear links. il diags Ry Mech Eng 96:709-11 D '22
One valve gear automatically changes a turbine into a high-, low-, mixed-pressure or extraction type. il diag Power 58:12-13 Jl 3 '23
Reducing lost motion on valve gear. M. M. Brown. diags Power 55:827 My 23 '22
Steam turbine governors and valve gears. E. H. Thompson. diags Power 57:675-8, 710-15, 790-5, 898-901, 931-3, 984-6, 1018-20 My 1-8, 22, Je 5-26 '23
Substitute for crab claw spring. J. B. Ficklen. diags Power Pl Eng 26:1070 N 1 '22
Three kinds of Corliss valve gears. W. H. Wakeman. il Power 54:794-6 N 22 '21
Unaflow engine with an unusual valve gear. il diags Power 56:843-4 N 28 '22
Unaflow valve gear of American design. il diags Power 56:880-1 D 5 '22
Valve-gear designs of British unaflow engines. il diags Power 57:246-8 F 13 '23
Valve gears on small Westinghouse direct-driven turbines. diags Power 58:730-1 N 6 '23

Valve setting
Corliss valve setting. Power Pl Eng 26:676 Jl 1 '22
Intelligent valve setting. N. H. Hite. diags Power 57:708-9 My 8 '23
Powerful valve-setting rolls. il diags plan Ry Mech Eng 97:48-9 Ja '23
Setting adjustable riding cutoff. il Power 56: 107 Jl 18 '22
Setting Ames unaflow valves. il diags Power 56:653-4 O 24 '22
Setting D-slide valve without turning over engine. diag Power 57:945 Je 12 '23
Setting piston valve. diags Power 56:299 Ag 22 '22
Setting valves by elliptical diagram. A. O. Gates. Power Pl Eng 26:410-13 Ap 15 '22; Abstract. Mech Eng 44:389 Je '22
Setting valves on the Nordberg unaflow engine. il diags Power 56:800-1 N 21 '22
Valve setting. L. H. Morrison. 96p Power, New York '23
Valve setting for vertical engines. Power Pl Eng 27:339-40 Mr 15 '23
Valve setting on large engines. A. C. Waldron. diags Power Pl Eng 26:55-7 Ja 1 '22

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Air and water relief valves. M. M. Borden. Can Eng 43:174-6 Jl 25 '22; Same. Am Water Works Assn J 10:59-67 Ja '23
Auxiliary exhaust valves on unaflow engines. il diags Power 56:718-19 N 7 '22
Blowoff valves and connections. W. H. Wakeman. diags Power 55:971-3 Je 20 '22; Discussion. D. R. Yarnall. 56:143 Jl 25 '22
Builds six-way reversing valve. il diags plan Iron Tr R 72:1669-71 Je 7 '23
Care of oil engine valves. J. E. Hauser. il Power 57:526 Ap 3 '23
Chattering non-return valves. C: B. Risley. diags Power Pl Eng 26:677 Jl 1 '22
Combines poppet and distributor valve type R. Abell. Soc Auto Eng J 13:423-4 N '23
Comparison of valve setting with indicator diagram. Power 58:703 O 30 '23
Complications due to lead. diags Power 56: 580 O 10 '22
Convenient foot-operated radiator valve. diags Power 56:162 Ag 1 '22
Diel-More automatic drain and relief valve for steam pipes and cylinders. il Ry Mech Eng 96:171 Mr '22; Coal Age 21:448 Mr 16 '22; Power 55:541 Ap 4 '22
Emergency closing valves. P. W. Knauf. il diags Refrig W 57:22-4 My '22
Emergency valve on steam lines for heating liquors in tanks. Textile World 64:99+ Jl 7 '23
Equalizing the compression. R. Grimshaw. diags Power Pl Eng 27:385-6 Ap 1 '23
Experiments on steam engine valve leakage. J. E. Rycroft. diags Engineer 134:62-3 Jl 21 '22
Explosion of a stop valve chest at a spinning mill. Engineering 114:246 Ag 25 '22
Explosion of a tee-piece on board a steamship. Engineering 114:143-4 Ag 4 '22
Finding exhaust lap with a given value travel. R. Grimshaw. diag Power 56:660 O 24 '22
Fisher multiple-disc valve. il Power 55:57 Ja 10 '22
Gas and air valves for open hearth furnaces. W: C. Bulmer. diags Blast F & Steel Pl 10: 302-6 Je '22; Same cond. Iron Tr R 70:1560-1 Je 1 '22; Excerpts. Iron Age 109:1556-7 Je 1 '22
Gasoline engine valve alterations increases fuel economy. C: Labbe. diags Power Pl Eng 27:897 S 1 '23
High pressure mercury reducing valve. J. W. Mackenzie. diag Power 58:297 Ag 21 '23
How reducing valve was repaired. H. L. Robinson. diags Power 58:619 O 16 '23
Improved type of control valve for sewage ejectors and traps. il diags Power 57:802 My 22 '23
Johnson-Boving valve. diags Engineering 113: 24 Ja 6 '22
Lift of a ball valve. C. B. Clapham. diags Engineer 135:472 My 4 '23
Lockwood's valve for direct-acting feed pump. diags Engineering 115:493 Ap 20 '23
Locomotive safety water gage valve. diag Ry Mech Eng 96:479-80 Ag '22
Low water? examine feed line valves. H. A. Jahnke. diags Power Pl Eng 27:892-3 S 1 '23
Lubricating feature added to Homestead quarter-turn valves. diags Power Pl Eng 26:1180 D 1 '22
McCracken improved valve. diag Power 54: 803 N 22 '21
Manager's approach to power problems. C: L. Hubbard. diags Factory 30:24-6+ Ja '23
National control valve. il diags Power Pl Eng 25:1126-7 N 15 '21
Ein neues gaswechselventil für regenerativöfen. P. Brandenburg. diags Stahl & Eisen 41:1614-16 N 10 '21

Valves—*Continued*
New material for poppet valves. il Automotive Ind 47:982 N 16 '22
New type emergency closing valve. diags Power Pl Eng 26:681-2 Jl 1 '22
New Worthington pump valve. il Chem & Met Eng 28:1079-80 Je 18 '23
Non-return valves save engine. R. A. Cultra. diags plan Power Pl Eng 27:1101-3 N 1 '23
Novel valve guide scheme; self-alignment of valve and guide. diags Automobile Eng 13: 104 Ap '23
Packless radiator valve. il Power Pl Eng 26: 930 S 15 '22
Perolin double-service blowoff valve. il Power 58:136 Jl 24 '23
Points on the selection of steam pressure reducing valves. W. F. Schaphorst. Heat & Ven 20:49-50 S '23
Poppet-valve turning fixture. J. V. Romig. diags Pop Mech 39:633 Ap '23
Poppet valves. diags Power 56:585 O 10 '22
Pressure regulating or reducing valves. diag Marine R 53:237-8 Je '23
Purpose of providing an engine valve with a pressure plate. diags Power 56:665 O 24 '22
Radiator valves. il Arch & Bldg 55:16-17 F '23
Regenerative reversing valve. il diags Iron Age 111:1628-9 Je 7 '23
Relief and drain valve works automatically. il Ry R 70:693 My 13 '22
Relieving the back pressure in reversing unaflow engines. diags Power 55:726 My 9 '22
Rings to keep valves from sticking. G. A. Luers. diag Am Mach 57:581 O 12 '22
Rotary-disc valve engine. O. D. Heavenrich. diag Soc Auto Eng J 13:422-3 N '23
Rotary-tube valve engine. E. Bournonville. diags Soc Auto Eng J 13:422 N '23
Safety devices for circulating systems. il diags Engineering 115:584-5 My 11 '23
Salvaging air compressor valves. S. P. Gould. diags Mach 29:429 F '23
Schutte & Koerting emergency closing valve for large steam pipes. diag Power 55:815-16 My 23 '22
Steam-engine valve leakage. Power 56:302 Ag 22 '22
Steam-turbine emergency governors and trip valves. A. D. Palmer. diags Power 56:324-6 Ag 29 '22
Steel cast valve with monel metal parts for use with high-pressure steam. diag Coal Age 23:58 Ja 11 '23
Stop check valve vs. triple duty non-return. W. N. Flanagan. Blast F & Steel Pl 11:344+ Je '23
Stop valves and header connections. W. H. Wakeman. diags Power 56:486-8 S 26 '22
Straightway blowoff valve for high pressures. diag Power 57:474 Mr 27 '23
Study of valves for furnaces. H. Hellan. diags Blast F & Steel Pl 10:473-7 S '22
Unaflow engine with single-beat poppet valves. diags Power 56:766-7 N 14 '22
Unique reducing valve. C. C. Brown. il diags Power Pl Eng 26:912-13 S 15 '22
Use of auxiliary back-pressure relief valve. P. Malloy. Power 55:907 Je 6 '22
Valve de queue Oméga, pour frein continu automatique à air comprimé. diag Génie Civil 80:15 Ja 7 '22
Valves and piping for high pressure steam lines. D. H. Skeen. diags Power Pl Eng 27: 565-6 Je 1 '23
Valves for high-speed ammonia compressors. J. H. H. Voss. il Power 55:619-21 Ap 18 '22
Valves for large gas engines. diags Power 56: 599 O 17 '22
Valves; pointers on selecting, installing and maintaining. il diag Power Pl Eng 26:37-9 Ja 1 '22
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Electric control
Back pressure valve is arranged for remote control. il Power Pl Eng 27:150-1 Ja 15 '23
Electric valve control. il Power Pl Eng 26:634-5 Je 15 '22
Electrically operated gate valves. C. E. Reese. il diags Gas Age 49:619-22 My 20 '22
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Steam, air and water lines can be closed from a distance by electric current. il Coal Age 21:819 My 18 '22

Manufacture
Finished seats are cast inside valves. D. Partridge. il Foundry 51:784 O 1 '23
Machining piston-valve follower on the turret lathe. diags Mach 30:60-1 S '23
Makes valves in new foundry. H. R. Simonds. il Foundry 50:431-5 Je 1 '22
Regrinding swing gate type valve. diags Ry Mech Eng 96:663 N '22
Semi-automatic valve finishing machine. il Ry Mech Eng 96:108-9 F '22

Repair
Repairs of ammonia valves having soft metal inserts. A. Gass. diag Power Pl Eng 26: 1174 D 1 '22

Testing
Tests on motor-operated gate valves for high-pressure steam. T. W. Stinson. il diag Power 55:263-5 F 14 '22; Abstract. Elec W 79:386-7 F 25 '22

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Automatic control of water flow. C. C. Brown. diags Power Pl Eng 26:1069 N 1 '22
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New balanced, positive motion needle valve. diag Eng & Contr 56:559 D 14 '21
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